## Assignment

1) Kali left the White House and traveled toward the lake. Ndiba left one hour later traveling 15 mph faster in an effort to catch up to her. After two hours Ndiba finally caught up. What was Kali's average speed?
2) Huong drove to the ferry office and back. The trip there took three hours and the trip back took four hours. She averaged 10 mph faster on the trip there than on the return trip. What was Huong's average speed on the outbound trip?
3) Matt left school and traveled toward the town hall. Two hours later Lisa left traveling at $35 \mathrm{~km} / \mathrm{h}$ in an effort to catch up to Matt. After traveling for three hours Lisa finally caught up. What was Matt's average speed?
4) Jennifer left the hospital and drove east at an average speed of $32 \mathrm{~km} / \mathrm{h}$. Matt left one hour later and drove in the same direction but with an average speed of $40 \mathrm{~km} / \mathrm{h}$. How long did Jennifer drive before Matt caught up?
5) A fishing boat left Port 28 and traveled west. A cruise ship left four hours later traveling at 15 mph in an effort to catch up to the fishing boat. After traveling for six hours the cruise ship finally caught up. What was the fishing boat's average speed?

Date $\qquad$ Period $\qquad$
2) Abhasra traveled to her cabin on the lake and back. The trip there took three hours and the trip back took five hours. She averaged 30 mph faster on the trip there than on the return trip. Find Abhasra's average speed on the outbound trip.
4) An Air Force plane left Singapore and flew toward the maintenance facility at an average speed of 150 mph . A cargo plane left some time later flying in the same direction at an average speed of 180 mph . After flying for five hours the cargo plane caught up with the Air Force plane. How long did the Air Force plane fly before the cargo plane caught up?
6) Bill traveled to the town hall and back. It took three hours longer to go there than it did to come back. The average speed on the trip there was 30 mph . The average speed on the way back was 75 mph . How many hours did the trip there take?
8) Krystal left the hospital and drove toward the lake at an average speed of $45 \mathrm{~km} / \mathrm{h}$. Heather left four hours later and drove in the opposite direction with an average speed of $80 \mathrm{~km} / \mathrm{h}$. Find the number of hours Heather needs to drive before they are 430 km apart.
10) A jet left Paris and flew north at an average speed of 180 mph . Some time later an Air Force plane left flying in the opposite direction with an average speed of 290 mph . After the jet had flown for nine hours the planes were 3650 mi . apart. Find the number of hours the Air Force plane flew.
11) Perry left school and drove toward the capital at an average speed of 25 mph . Jaidee left at the same time and drove in the opposite direction with an average speed of 30 mph . Find the number of hours Jaidee needs to drive before they are 55 mi . apart.
13) A jet left the airport at the same time as a passenger plane. The planes flew in opposite directions. The passenger plane flew at a speed of $260 \mathrm{~km} / \mathrm{h}$. After 11 hours they were 5060 km apart. How fast did the jet fly?
15) Maria left the hardware store and traveled toward the train station at an average speed of $40 \mathrm{~km} / \mathrm{h}$. Ming left some time later traveling in the opposite direction with an average speed of $30 \mathrm{~km} / \mathrm{h}$. After Maria had traveled for three hours they were 150 km apart. Find the number of hours Ming traveled.
17) Jasmine left school and drove east. Two hours later Darryl left driving 25 mph faster in an effort to catch up to her. After four hours Darryl finally caught up. What was Jasmine's average speed?
19) A passenger train left Abuja and traveled toward the fueling station at an average speed of 30 mph . A freight train left some time later traveling in the same direction at an average speed of 75 mph . After traveling for two hours the freight train caught up with the passenger train. Find the number of hours the passenger train traveled before the freight train caught up.
21) Ryan left the White House driving toward the capital one hour before Carlos. Carlos drove in the opposite direction going $0 \mathrm{~km} / \mathrm{h}$ slower then Ryan for one hour after which time they were 195 km apart. Find Ryan's speed.
12) Jack traveled to the ferry office and back. On the trip there he traveled $40 \mathrm{~km} / \mathrm{h}$ and on the return trip he went $50 \mathrm{~km} / \mathrm{h}$. How long did the trip there take if the return trip took four hours?
14) Julio made a trip to the recycling plant and back. The trip there took three hours and the trip back took five hours. He averaged $20 \mathrm{~km} / \mathrm{h}$ faster on the trip there than on the return trip. Find Julio's average speed on the outbound trip.
16) A cattle train traveled to Johannesburg and back. The trip there took 18 hours and the trip back took ten hours. What was the cattle train's average speed on the trip there if it averaged 72 mph on the return trip?
18) Ashley made a trip to her friend's house and back. The trip there took four hours and the trip back took three hours. She averaged 10 mph faster on the return trip than on the outbound trip. Find Ashley's average speed on the outbound trip.
20) An aircraft carrier traveled to Madagascar and back. It took three hours less time to get there than it did to get back. The average speed on the trip there was $28 \mathrm{~km} / \mathrm{h}$. The average speed on the way back was 16 $\mathrm{km} / \mathrm{h}$. How many hours did the trip there take?
22) Carlos left the airport and drove toward the recycling plant at an average speed of 30 $\mathrm{km} / \mathrm{h}$. Some time later Dan left driving in the same direction but at an average speed of $40 \mathrm{~km} / \mathrm{h}$. After driving for three hours Dan caught up with Carlos. How long did Carlos drive before Dan caught up?
24) Trevon left the mall and traveled toward the desert at an average speed of 24 mph . Daniel left two hours later and traveled in the same direction but with an average speed of 40 mph . Find the number of hours Trevon traveled before Daniel caught up.
23) A freight train left Bangalore and traveled south at an average speed of $30 \mathrm{~km} / \mathrm{h}$. Some time later a passenger train left traveling in the opposite direction with an average speed of $40 \mathrm{~km} / \mathrm{h}$. After the freight train had traveled for one hour the trains were 70 km apart. Find the number of hours the passenger train traveled.

## Answers to Assignment (ID: 1)

| 1) 30 mph | 2) 75 mph | 3) 40 mph | 4) 6 hours |
| :--- | :--- | :--- | :--- |
| 5) $21 \mathrm{~km} / \mathrm{h}$ | 6) 5 hours | 7) 5 hours | 8) 2 hours |
| 9) 9 mph | 10) 7 hours | 11) 1 hour | 12) 5 hours |
| 13) $200 \mathrm{~km} / \mathrm{h}$ | 14) $50 \mathrm{~km} / \mathrm{h}$ | 15) 1 hour | 16) 40 mph |
| 17) 50 mph | 18) 30 mph | 19) 5 hours | 20) 4 hours |
| 21) $65 \mathrm{~km} / \mathrm{h}$ | 22) 4 hours | 23) 1 hour | 24) 5 hours |

## Assignment

1) A submarine left Diego Garcia and traveled toward Tahiti. An aircraft carrier left one hour later traveling at 22 mph in an effort to catch up to the submarine. After traveling for ten hours the aircraft carrier finally caught up. What was the submarine's average speed?
2) A passenger plane left Los Angeles and flew toward Dublin at an average speed of 498 mph . A jet left some time later flying in the opposite direction with an average speed of 425 mph . After the passenger plane had flown for 11 hours the planes were 9303 mi . apart. How long did the jet fly?
3) A freight train made a trip to the fueling station and back. The trip there took 15 hours and the trip back took four hours. It averaged $44 \mathrm{~km} / \mathrm{h}$ faster on the return trip than on the outbound trip. Find the freight train's average speed on the outbound trip.
4) Heather left the science museum traveling toward the dump one hour before Julia. Julia traveled in the opposite direction going $10 \mathrm{~km} / \mathrm{h}$ faster then Heather for four hours after which time they were 400 km apart. What was Heather's speed?
5) An aircraft carrier made a trip to a navigational buoy and back. The trip there took six hours and the trip back took ten hours. What was the aircraft carrier's average speed on the trip there if it averaged 9 mph on the return trip?

Date $\qquad$ Period $\qquad$
2) Anjali traveled to the town hall and back. On the trip there she traveled $60 \mathrm{~km} / \mathrm{h}$ and on the return trip she went $80 \mathrm{~km} / \mathrm{h}$. How long did the trip there take if the return trip took three hours?
4) Arjun left the White House and traveled toward the ferry office at an average speed of 35 mph . Gabriella left at the same time and traveled in the opposite direction with an average speed of 45 mph . Find the number of hours Gabriella needs to travel before they are 240 mi . apart.
6) An aircraft carrier left Port 36 five hours before a submarine. The ships traveled in opposite directions. The submarine traveled at $10 \mathrm{~km} / \mathrm{h}$ for seven hours. After this time the ships were 190 km apart. Find the aircraft carrier's speed.
8) Mary left Shawna's house and drove toward the lake at an average speed of 20 mph . Some time later Julio left driving in the same direction but at an average speed of 30 mph . After driving for four hours Julio caught up with Mary. How long did Mary drive before Julio caught up?
10) Paul left the hospital and traveled north. Kim left one hour later traveling 12 mph faster in an effort to catch up to him. After four hours Kim finally caught up. What was Paul's average speed?
11) Amy made a trip to the ferry office and back. On the trip there she drove $20 \mathrm{~km} / \mathrm{h}$ and on the return trip she went $24 \mathrm{~km} / \mathrm{h}$. How long did the trip there take if the return trip took five hours?
13) Jill left the movie theater and traveled toward the train station. Kristin left one hour later traveling at $50 \mathrm{~km} / \mathrm{h}$ in an effort to catch up to Jill. After traveling for four hours Kristin finally caught up. What was Jill's average speed?
15) An Air Force plane left Rome and flew toward the airshow at an average speed of 470 mph . A cargo plane left some time later flying in the opposite direction with an average speed of 480 mph . After the Air Force plane had flown for five hours the planes were 4750 mi . apart. Find the number of hours the cargo plane flew.
17) Joe and Krystal left the hardware store at the same time. They traveled in opposite directions. Krystal traveled 20 mph faster than Joe. After six hours they were 480 mi . apart. Find Joe's speed.
19) Gabriella left the movie theater and drove north at an average speed of $35 \mathrm{~km} / \mathrm{h}$. Mary left at the same time and drove in the opposite direction with an average speed of $65 \mathrm{~km} / \mathrm{h}$. Find the number of hours Mary needs to drive before they are 400 km apart.
21) An Air Force plane flew to Jakarta and back. On the trip there it flew $420 \mathrm{~km} / \mathrm{h}$ and on the return trip it went $240 \mathrm{~km} / \mathrm{h}$. How long did the trip there take if the return trip took seven hours?
12) A jet left Rome and flew toward Las Vegas at an average speed of $162 \mathrm{~km} / \mathrm{h}$. A passenger plane left some time later flying in the same direction at an average speed of $270 \mathrm{~km} / \mathrm{h}$. After flying for six hours the passenger plane caught up with the jet. How long did the jet fly before the passenger plane caught up?
14) Shawna traveled to the recycling plant and back. The trip there took five hours and the trip back took two hours. She averaged 30 $\mathrm{km} / \mathrm{h}$ faster on the return trip than on the outbound trip. Find Shawna's average speed on the outbound trip.
16) Jenny left the hospital and drove toward the mountains at an average speed of 20 mph . Ndiba left two hours later and drove in the same direction but with an average speed of 30 mph . How long did Jenny drive before Ndiba caught up?
18) An aircraft carrier left Hawaii and traveled toward Guam. Four hours later a submarine left traveling at 25 mph in an effort to catch up to the aircraft carrier. After traveling for six hours the submarine finally caught up. Find the aircraft carrier's average speed.
20) Kayla traveled to the recycling plant and back. The trip there took five hours and the trip back took three hours. She averaged 55 $\mathrm{km} / \mathrm{h}$ on the return trip. Find the average speed of the trip there.
22) An aircraft carrier and a container ship left the Dania Pier at the same time. The ships traveled in opposite directions. The container ship traveled $15 \mathrm{~km} / \mathrm{h}$ faster than the aircraft carrier. After 13 hours they were 455 km apart. Find the aircraft carrier's speed.
23) Eduardo left the airport and traveled toward his cabin on the lake at an average speed of 30 mph . Some time later Sarawong left traveling in the same direction but at an average speed of 45 mph . After traveling for two hours Sarawong caught up with Eduardo. Find the number of hours Eduardo traveled before Sarawong caught up.
24) A passenger train traveled to the repair yards and back. The trip there took 12 hours and the trip back took 15 hours. It averaged 11 mph faster on the trip there than on the return trip. Find the passenger train's average speed on the outbound trip.

## Answers to Assignment (ID: 2)

| 1) 20 mph | 2) 4 hours | 3) 9 hours | 4) 3 hours |
| :--- | :--- | :--- | :--- |
| 5) $16 \mathrm{~km} / \mathrm{h}$ | 6) $10 \mathrm{~km} / \mathrm{h}$ | 7) $40 \mathrm{~km} / \mathrm{h}$ | 8) 6 hours |
| 9) 15 mph | 10) 48 mph | 11) 6 hours | 12) 10 hours |
| 13) $40 \mathrm{~km} / \mathrm{h}$ | 14) $20 \mathrm{~km} / \mathrm{h}$ | 15) 5 hours | 16) 6 hours |
| 17) 30 mph | 18) 15 mph | 19) 4 hours | 20) $33 \mathrm{~km} / \mathrm{h}$ |
| 21) 4 hours | 22) $10 \mathrm{~km} / \mathrm{h}$ | 23) 3 hours | 24) 55 mph |

## Assignment

1) A passenger train made a trip to Las Vegas and back. The trip there took 16 hours and the trip back took six hours. It averaged 80 mph on the return trip. Find the average speed of the trip there.
2) Imani traveled to the ferry office and back. It took three hours longer to go there than it did to come back. The average speed on the trip there was $30 \mathrm{~km} / \mathrm{h}$. The average speed on the way back was $75 \mathrm{~km} / \mathrm{h}$. How many hours did the trip there take?
3) A cargo plane left Paris and flew toward Moscow at an average speed of $240 \mathrm{~km} / \mathrm{h}$. A passenger plane left three hours later and flew in the same direction but with an average speed of $360 \mathrm{~km} / \mathrm{h}$. Find the number of hours the cargo plane flew before the passenger plane caught up.
4) Jaidee left the mall and traveled toward the lake at an average speed of 32 mph . Shanice left some time later traveling in the same direction at an average speed of 40 mph . After traveling for four hours Shanice caught up with Jaidee. Find the number of hours Jaidee traveled before Shanice caught up.
5) A cargo plane left London and flew toward Las Vegas at an average speed of $290 \mathrm{~km} / \mathrm{h}$. A passenger plane left at the same time and flew in the opposite direction with an average speed of $350 \mathrm{~km} / \mathrm{h}$. Find the number of hours the passenger plane needs to fly before the planes are 1280 km apart.

Date $\qquad$ Period $\qquad$
2) DeShawn left the mall and drove toward the ferry office. One hour later Pranav left driving 10 mph faster in an effort to catch up to him. After five hours Pranav finally caught up. What was DeShawn's average speed?
4) A passenger train left Seoul and traveled toward New York at an average speed of 40 $\mathrm{km} / \mathrm{h}$. Some time later a freight train left traveling in the same direction but at an average speed of $45 \mathrm{~km} / \mathrm{h}$. After traveling for eight hours the freight train caught up with the passenger train. How long did the passenger train travel before the freight train caught up?
6) Shreya left the airport at the same time as Aliyah. They drove in opposite directions. Aliyah drove at a speed of $70 \mathrm{~km} / \mathrm{h}$. After six hours they were 660 km apart. How fast did Shreya drive?
8) A cattle train left Miami and traveled toward New York at an average speed of 15 mph . A passenger train left nine hours later and traveled in the opposite direction with an average speed of 85 mph . Find the number of hours the passenger train needs to travel before the trains are 435 mi . apart.
10) Jimmy left Elisa's house four hours before Micaela. They drove in opposite directions. Micaela drove at 50 mph for one hour. After this time they were 425 mi . apart. What was Jimmy's speed?
11) A container ship made a trip to a navigational buoy and back. The trip there took three hours and the trip back took five hours. What was the container ship's average speed on the trip there if it averaged $12 \mathrm{~km} / \mathrm{h}$ on the return trip?
13) Shayna drove to the recycling plant and back. The trip there took four hours and the trip back took five hours. She averaged 8 $\mathrm{km} / \mathrm{h}$ faster on the trip there than on the return trip. What was Shayna's average speed on the outbound trip?
15) A cruise ship traveled to a navigational buoy and back. The trip there took ten hours and the trip back took eight hours. It averaged 5 mph faster on the return trip than on the outbound trip. What was the cruise ship's average speed on the outbound trip?
17) James left the hospital and drove toward his friend's house at an average speed of 50 mph . Some time later Gabriella left driving in the same direction but at an average speed of 75 mph . After driving for two hours Gabriella caught up with James. Find the number of hours James drove before Gabriella caught up.
19) Jose left the hardware store and traveled toward the lake at an average speed of 40 $\mathrm{km} / \mathrm{h}$. Emily left one hour later and traveled in the same direction but with an average speed of $50 \mathrm{~km} / \mathrm{h}$. Find the number of hours Jose traveled before Emily caught up.
21) A diesel train left Miami and traveled south at an average speed of $63 \mathrm{~km} / \mathrm{h}$. Some time later a freight train left traveling in the same direction but at an average speed of 70 $\mathrm{km} / \mathrm{h}$. After traveling for 18 hours the freight train caught up with the diesel train. How long did the diesel train travel before the freight train caught up?
12) Rob left the White House at the same time as Gabriella. They traveled in opposite directions. Gabriella traveled at a speed of $60 \mathrm{~km} / \mathrm{h}$. After one hour they were 80 km apart. How fast did Rob travel?
14) A diesel train left Berlin traveling west 11 hours before a cattle train. The cattle train traveled in the opposite direction going 25 mph faster then the diesel train for five hours after which time the trains were 965 mi. apart. Find the diesel train's speed.
16) Adam traveled to his cabin on the lake and back. On the trip there he traveled 30 mph and on the return trip he went 24 mph . How long did the trip there take if the return trip took five hours?
18) A container ship traveled to Tahiti and back. The trip there took six hours and the trip back took nine hours. It averaged $5 \mathrm{~km} / \mathrm{h}$ faster on the trip there than on the return trip. What was the container ship's average speed on the outbound trip?
20) Julia left home and drove toward the recycling plant at an average speed of 55 $\mathrm{km} / \mathrm{h}$. Some time later Jessica left driving in the opposite direction with an average speed of $30 \mathrm{~km} / \mathrm{h}$. After Julia had driven for three hours they were 225 km apart. Find the number of hours Jessica drove.
22) Natalie and Joe left the movie theater at the same time. They traveled in opposite directions. Joe traveled 10 mph faster than Natalie. After three hours they were 390 mi . apart. Find Natalie's speed.
23) Amanda left the hospital and drove toward her cabin on the lake. Two hours later Mei left driving at 30 mph in an effort to catch up to Amanda. After driving for four hours Mei finally caught up. Find Amanda's average speed.
24) An Air Force plane left New York and flew south at an average speed of 495 mph . A cargo plane left some time later flying in the opposite direction with an average speed of 425 mph . After the Air Force plane had flown for eight hours the planes were 4810 mi. apart. How long did the cargo plane fly?

## Answers to Assignment (ID: 3)

| 1) 30 mph | 2) 50 mph | 3) 5 hours | 4) 9 hours |
| :--- | :--- | :--- | :--- |
| 5) 9 hours | 6) $40 \mathrm{~km} / \mathrm{h}$ | 7) 5 hours | 8) 3 hours |
| 9) 2 hours | 10) 75 mph | 11) $20 \mathrm{~km} / \mathrm{h}$ | 12) $20 \mathrm{~km} / \mathrm{h}$ |
| 13) $40 \mathrm{~km} / \mathrm{h}$ | 14) 40 mph | 15) 20 mph | 16) 4 hours |
| 17) 3 hours | 18) $15 \mathrm{~km} / \mathrm{h}$ | 19) 5 hours | 20) 2 hours |
| 21) 20 hours | 22) 60 mph | 23) 20 mph | 24) 2 hours |

## Assignment

1) A freight train left the station and traveled south. One hour later a diesel train left traveling 5 mph faster in an effort to catch up to it. After four hours the diesel train finally caught up. Find the freight train's average speed.
2) Castel left school five hours before Perry. They drove in opposite directions. Perry drove at $70 \mathrm{~km} / \mathrm{h}$ for one hour. After this time they were 520 km apart. What was Castel's speed?
3) A freight train left Seoul and traveled toward Johannesburg at an average speed of $75 \mathrm{~km} / \mathrm{h}$. A passenger train left some time later traveling in the same direction at an average speed of $90 \mathrm{~km} / \mathrm{h}$. After traveling for five hours the passenger train caught up with the freight train. Find the number of hours the freight train traveled before the passenger train caught up.
4) An Air Force plane left London and flew west. Three hours later a cargo plane left flying 96 mph faster in an effort to catch up to it. After seven hours the cargo plane finally caught up. What was the Air Force plane's average speed?
5) Abhasra left the mall and traveled toward the ferry office at an average speed of 28 mph . Some time later Lisa left traveling in the same direction but at an average speed of 70 mph . After traveling for two hours Lisa caught up with Abhasra. Find the number of hours Abhasra traveled before Lisa caught up.

Date $\qquad$ Period $\qquad$
2) Alberto made a trip to the ferry office and back. The trip there took five hours and the trip back took three hours. He averaged 60 $\mathrm{km} / \mathrm{h}$ on the return trip. Find the average speed of the trip there.
4) A cargo plane flew to Moscow and back. It took one hour less time to get there than it did to get back. The average speed on the trip there was $335 \mathrm{~km} / \mathrm{h}$. The average speed on the way back was $268 \mathrm{~km} / \mathrm{h}$. How many hours did the trip there take?
6) Aliyah traveled to the lake and back. The trip there took five hours and the trip back took two hours. She averaged 50 mph on the return trip. Find the average speed of the trip there.
8) A diesel train traveled to New York and back. It took seven hours less time to get there than it did to get back. The average speed on the trip there was 90 mph . The average speed on the way back was 27 mph . How many hours did the trip there take?
10) A diesel train made a trip to the outer-most station and back. The trip there took 15 hours and the trip back took 12 hours. What was the diesel train's average speed on the trip there if it averaged $50 \mathrm{~km} / \mathrm{h}$ on the return trip?
11) Huong left the science museum and drove toward the town hall at an average speed of $30 \mathrm{~km} / \mathrm{h}$. Jimmy left one hour later and drove in the same direction but with an average speed of $45 \mathrm{~km} / \mathrm{h}$. How long did Huong drive before Jimmy caught up?
13) An aircraft carrier left Port 51 and traveled toward St. Vincent at an average speed of 20 mph . A submarine left some time later traveling in the opposite direction with an average speed of 15 mph . After the aircraft carrier had traveled for 13 hours the vessels were 365 mi . apart. Find the number of hours the submarine traveled.
15) Beth left the mall and traveled toward her friend's house at an average speed of 30 mph . Some time later Abhasra left traveling in the same direction but at an average speed of 50 mph . After traveling for three hours Abhasra caught up with Beth. How long did Beth travel before Abhasra caught up?
17) A passenger plane made a trip to the airshow and back. The trip there took nine hours and the trip back took six hours. It averaged $101 \mathrm{~km} / \mathrm{h}$ faster on the return trip than on the outbound trip. Find the passenger plane's average speed on the outbound trip.
19) Ted made a trip to the train station and back. On the trip there he traveled $36 \mathrm{~km} / \mathrm{h}$ and on the return trip he went $45 \mathrm{~km} / \mathrm{h}$. How long did the trip there take if the return trip took four hours?
21) Maria made a trip to the lake and back. The trip there took two hours and the trip back took three hours. She averaged 30 mph on the return trip. Find the average speed of the trip there.
12) Matt left the movie theater and drove toward the recycling plant at an average speed of 42 mph . Some time later Lea left driving in the same direction but at an average speed of 70 mph . After driving for three hours Lea caught up with Matt. Find the number of hours Matt drove before Lea caught up.
14) Krystal left the mall one hour before Sumalee. They drove in opposite directions. Sumalee drove at 70 mph for two hours. After this time they were 215 mi . apart. What was Krystal's speed?
16) A cattle train and a diesel train left the station at the same time. The trains traveled in opposite directions. The diesel train traveled $25 \mathrm{~km} / \mathrm{h}$ faster than the cattle train. After 19 hours they were 2565 km apart. Find the cattle train's speed.
18) Jack left the White House one hour before Ming. They traveled in opposite directions. Ming traveled at $80 \mathrm{~km} / \mathrm{h}$ for three hours. After this time they were 360 km apart. Find Jack's speed.
20) Julio left the hardware store and drove toward the train station at an average speed of 61 mph . Imani left at the same time and drove in the opposite direction with an average speed of 68 mph . How long does Imani need to drive before they are 516 mi . apart?
22) A passenger train traveled to the outer-most station and back. It took four hours longer to go there than it did to come back. The average speed on the trip there was 18 mph . The average speed on the way back was 30 mph. How many hours did the trip there take?
24) Ashley made a trip to the ferry office and back. On the trip there she drove $55 \mathrm{~km} / \mathrm{h}$ and on the return trip she went $33 \mathrm{~km} / \mathrm{h}$. How long did the trip there take if the return trip took five hours?
23) An aircraft carrier left Diego Garcia and traveled toward dry dock at an average speed of 12 mph . A container ship left five hours later and traveled in the same direction but with an average speed of 27 mph . How long did the aircraft carrier travel before the container ship caught up?

## Answers to Assignment (ID: 4)

| 1) 20 mph | 2) $36 \mathrm{~km} / \mathrm{h}$ | 3) $75 \mathrm{~km} / \mathrm{h}$ | 4) 4 hours |
| :--- | :--- | :--- | :--- |
| 5) 6 hours | 6) 20 mph | 7) 224 mph | 8) 3 hours |
| 9) 5 hours | 10) $40 \mathrm{~km} / \mathrm{h}$ | 11) 3 hours | 12) 5 hours |
| 13) 7 hours | 14) 25 mph | 15) 5 hours | 16) $55 \mathrm{~km} / \mathrm{h}$ |
| 17) $202 \mathrm{~km} / \mathrm{h}$ | 18) $30 \mathrm{~km} / \mathrm{h}$ | 19) 5 hours | 20) 4 hours |
| 21) 45 mph | 22) 10 hours | 23) 9 hours | 24) 3 hours |

1) 20 mph
2) $36 \mathrm{~km} / \mathrm{h}$
3) $75 \mathrm{~km} / \mathrm{h}$
4) 4 hours
5) 224 mph
6) 5 hours
7) 5 hours
8) 5 hours
9) 9 hours
10) 3 hours

## Assignment

1) A cruise ship left Port 29 traveling north one hour before a container ship. The container ship traveled in the opposite direction going $10 \mathrm{~km} / \mathrm{h}$ slower then the cruise ship for 13 hours after which time the vessels were 410 km apart. What was the cruise ship's speed?
2) A cruise ship left the Azores and traveled east at an average speed of $8 \mathrm{~km} / \mathrm{h}$. A submarine left three hours later and traveled in the same direction but with an average speed of $14 \mathrm{~km} / \mathrm{h}$. Find the number of hours the cruise ship traveled before the submarine caught up.
3) Micaela left the movie theater and drove toward the capital. Kayla left two hours later driving at 75 mph in an effort to catch up to Micaela. After driving for three hours Kayla finally caught up. Find Micaela's average speed.
4) Shanice left the hospital and traveled toward her friend's house. One hour later Gabriella left traveling at 40 mph in an effort to catch up to Shanice. After traveling for three hours Gabriella finally caught up. Find Shanice's average speed.
5) A cattle train left Abuja traveling west 15 hours before a passenger train. The passenger train traveled in the opposite direction going $20 \mathrm{~km} / \mathrm{h}$ faster then the cattle train for four hours after which time the trains were 1230 km apart. How fast did the cattle train travel?

Date $\qquad$ Period $\qquad$
2) Chelsea left the hospital and drove east at an average speed of $50 \mathrm{~km} / \mathrm{h}$. Some time later Eduardo left driving in the same direction but at an average speed of $60 \mathrm{~km} / \mathrm{h}$. After driving for five hours Eduardo caught up with Chelsea. Find the number of hours Chelsea drove before Eduardo caught up.
4) Carlos left school and drove toward the lake at an average speed of 70 mph . Daniel left some time later driving in the opposite direction with an average speed of 55 mph . After Carlos had driven for six hours they were 475 mi . apart. How long did Daniel drive?
6) A freight train left Bangalore at the same time as a diesel train. The trains traveled in opposite directions. The diesel train traveled at a speed of 55 mph . After nine hours they were 990 mi . apart. How fast did the freight train travel?
8) A fishing boat left Hawaii and traveled west at an average speed of $15 \mathrm{~km} / \mathrm{h}$. An aircraft carrier left at the same time and traveled in the opposite direction with an average speed of $25 \mathrm{~km} / \mathrm{h}$. Find the number of hours the aircraft carrier needs to travel before the ships are 40 km apart.
10) Anjali traveled to the recycling plant and back. The trip there took five hours and the trip back took three hours. What was Anjali's average speed on the trip there if she averaged $50 \mathrm{~km} / \mathrm{h}$ on the return trip?
11) Sumalee left the science museum and drove east at an average speed of 45 mph . Some time later Jose left driving in the opposite direction with an average speed of 80 mph . After Sumalee had driven for four hours they were 500 mi . apart. How long did Jose drive?
13) Heather left Ryan's house and traveled toward the desert. Mei left three hours later traveling 39 mph faster in an effort to catch up to her. After two hours Mei finally caught up. Find Heather's average speed.
15) A diesel train left the station and traveled toward the outer-most station at an average speed of $55 \mathrm{~km} / \mathrm{h}$. A cattle train left three hours later and traveled in the same direction but with an average speed of 70 $\mathrm{km} / \mathrm{h}$. How long did the diesel train travel before the cattle train caught up?
17) Amy left the mall and drove toward the ocean at an average speed of $55 \mathrm{~km} / \mathrm{h}$. Some time later Brenda left driving in the same direction but at an average speed of 66 $\mathrm{km} / \mathrm{h}$. After driving for five hours Brenda caught up with Amy. How long did Amy drive before Brenda caught up?
19) A container ship left Port 28 and traveled toward Guam at an average speed of 15 mph . An aircraft carrier left at the same time and traveled in the opposite direction with an average speed of 16 mph . Find the number of hours the aircraft carrier needs to travel before the ships are 248 mi . apart.
12) A container ship traveled to a navigational buoy and back. It took two hours longer to go there than it did to come back. The average speed on the trip there was 15 mph . The average speed on the way back was 20 mph. How many hours did the trip there take?
14) Mary drove to her friend's house and back. The trip there took four hours and the trip back took three hours. She averaged 40 mph on the return trip. Find the average speed of the trip there.
16) A fishing boat made a trip to Guam and back. On the trip there it traveled $20 \mathrm{~km} / \mathrm{h}$ and on the return trip it went $30 \mathrm{~km} / \mathrm{h}$. How long did the trip there take if the return trip took six hours?
18) Mofor left home and traveled toward the lake at an average speed of $35 \mathrm{~km} / \mathrm{h}$. Shreya left three hours later and traveled in the opposite direction with an average speed of $65 \mathrm{~km} / \mathrm{h}$. How long does Shreya need to travel before they are 405 km apart?
20) Jill left the White House and traveled toward the train station at an average speed of 48 mph . Some time later Shayna left traveling in the same direction but at an average speed of 64 mph . After traveling for three hours Shayna caught up with Jill. How long did Jill travel before Shayna caught up?
21) Mark left the airport one hour before Paul. They drove in opposite directions. Paul drove at 60 mph for one hour. After this time they were 170 mi . apart. What was Mark's speed?
23) Joe left the mall at the same time as Bill. They traveled in opposite directions. Bill traveled at a speed of $45 \mathrm{~km} / \mathrm{h}$. After one hour they were 80 km apart. How fast did Joe travel?
22) A jet flew to the airshow and back. The trip there took three hours and the trip back took five hours. It averaged 168 mph faster on the trip there than on the return trip. Find the jet's average speed on the outbound trip.
24) Jessica traveled to the ferry office and back. It took one hour less time to get there than it did to get back. The average speed on the trip there was $50 \mathrm{~km} / \mathrm{h}$. The average speed on the way back was $40 \mathrm{~km} / \mathrm{h}$. How many hours did the trip there take?

## Answers to Assignment (ID: 5)

| 1) $20 \mathrm{~km} / \mathrm{h}$ | 2) 6 hours | 3) 7 hours | 4) 1 hour |
| :--- | :--- | :--- | :--- |
| 5) 45 mph | 6) 55 mph | 7) 30 mph | 8) 1 hour |
| 9) $50 \mathrm{~km} / \mathrm{h}$ | 10) $30 \mathrm{~km} / \mathrm{h}$ | 11) 4 hours | 12) 8 hours |
| 13) 26 mph | 14) 30 mph | 15) 14 hours | 16) 9 hours |
| 17) 6 hours | 18) 3 hours | 19) 8 hours | 20) 4 hours |
| 21) 55 mph | 22) 420 mph | 23) $35 \mathrm{~km} / \mathrm{h}$ | 24) 4 hours |

3) 7 hours
4) 1 hour
5) 1 hour
6) 8 hours
7) 9 hours
8) 4 hours
9) 4 hours

## Assignment

1) A diesel train traveled to the outer-most station and back. The trip there took three hours and the trip back took four hours. It averaged $45 \mathrm{~km} / \mathrm{h}$ on the return trip. Find the average speed of the trip there.
2) Stephanie traveled to the train station and back. It took two hours longer to go there than it did to come back. The average speed on the trip there was 36 mph . The average speed on the way back was 60 mph . How many hours did the trip there take?
3) Dan left home and drove toward the lake at an average speed of 70 mph . Abhasra left one hour later and drove in the opposite direction with an average speed of 70 mph . How long does Abhasra need to drive before they are 350 mi . apart?
4) A diesel train traveled to the fueling station and back. It took seven hours less time to get there than it did to get back. The average speed on the trip there was $70 \mathrm{~km} / \mathrm{h}$. The average speed on the way back was 21 $\mathrm{km} / \mathrm{h}$. How many hours did the trip there take?
5) Imani left the hospital one hour before Molly. They drove in opposite directions. Molly drove at $76 \mathrm{~km} / \mathrm{h}$ for three hours. After this time they were 544 km apart. What was Imani's speed?

Date $\qquad$ Period $\qquad$
2) An Air Force plane left London flying south eight hours before a cargo plane. The cargo plane flew in the opposite direction going $213 \mathrm{~km} / \mathrm{h}$ faster then the Air Force plane for four hours after which time the planes were 4676 km apart. What was the Air Force plane's speed?
4) Kayla left the hardware store and traveled toward the ocean at an average speed of 40 mph . Totsakan left some time later traveling in the opposite direction with an average speed of 50 mph . After Kayla had traveled for two hours they were 130 mi . apart. How long did Totsakan travel?
6) Eduardo left school and drove toward his cabin on the lake. Anjali left one hour later driving at 80 mph in an effort to catch up to Eduardo. After driving for three hours Anjali finally caught up. Find Eduardo's average speed.
8) A passenger plane left Nairobi and flew west at an average speed of $264 \mathrm{~km} / \mathrm{h}$. A cargo plane left two hours later and flew in the same direction but with an average speed of $440 \mathrm{~km} / \mathrm{h}$. Find the number of hours the passenger plane flew before the cargo plane caught up.
10) Molly left the hardware store and traveled toward the recycling plant. Aliyah left one hour later traveling 10 mph faster in an effort to catch up to her. After three hours Aliyah finally caught up. What was Molly's average speed?
11) A jet and an Air Force plane left Sydney at the same time. The planes flew in opposite directions. The Air Force plane flew 225 mph faster than the jet. After ten hours they were 7550 mi . apart. Find the jet's speed.
13) Jaidee left the movie theater one hour before Cody. They traveled in opposite directions. Cody traveled at 20 mph for three hours. After this time they were 300 mi . apart. What was Jaidee's speed?
15) An Air Force plane left Singapore flying north four hours before a cargo plane. The cargo plane flew in the opposite direction going $45 \mathrm{~km} / \mathrm{h}$ slower then the Air Force plane for five hours after which time the planes were 5165 km apart. How fast did the Air Force plane fly?
17) A cruise ship traveled to Tahiti and back. It took four hours longer to go there than it did to come back. The average speed on the trip there was $6 \mathrm{~km} / \mathrm{h}$. The average speed on the way back was $9 \mathrm{~km} / \mathrm{h}$. How many hours did the trip there take?
19) Shayna made a trip to the train station and back. On the trip there she drove 35 mph and on the return trip she went 28 mph . How long did the trip there take if the return trip took five hours?
12) A passenger plane left Singapore and flew north at an average speed of 150 mph . Some time later a cargo plane left flying in the same direction but at an average speed of 165 mph . After flying for ten hours the cargo plane caught up with the passenger plane. How long did the passenger plane fly before the cargo plane caught up?
14) Sarawong left the hospital and traveled east. Carlos left one hour later traveling $20 \mathrm{~km} / \mathrm{h}$ faster in an effort to catch up to him. After two hours Carlos finally caught up. Find Sarawong's average speed.
16) Jimmy left the White House and drove toward the desert at an average speed of 50 $\mathrm{km} / \mathrm{h}$. Some time later Ryan left driving in the opposite direction with an average speed of $45 \mathrm{~km} / \mathrm{h}$. After Jimmy had driven for five hours they were 385 km apart. Find the number of hours Ryan drove.
18) An aircraft carrier left the Azores traveling west ten hours before a container ship. The container ship traveled in the opposite direction going 15 mph slower then the aircraft carrier for four hours after which time the ships were 390 mi . apart. How fast did the aircraft carrier travel?
20) An aircraft carrier traveled to a navigational buoy and back. It took six hours less time to get there than it did to get back. The average speed on the trip there was 20 mph . The average speed on the way back was 8 mph. How many hours did the trip there take?
21) Asanji left the science museum and drove toward the lake at an average speed of 64 mph. Ashley left some time later driving in the same direction at an average speed of 80 mph. After driving for four hours Ashley caught up with Asanji. Find the number of hours Asanji drove before Ashley caught up.
23) James made a trip to the ferry office and back. The trip there took three hours and the trip back took five hours. He averaged $24 \mathrm{~km} / \mathrm{h}$ on the return trip. Find the average speed of the trip there.
22) A passenger train left Miami and traveled east. A cattle train left three hours later traveling at $35 \mathrm{~km} / \mathrm{h}$ in an effort to catch up to the passenger train. After traveling for four hours the cattle train finally caught up. What was the passenger train's average speed?
24) Mei left the mall and drove east at an average speed of $26 \mathrm{~km} / \mathrm{h}$. Julia left three hours later and drove in the same direction but with an average speed of $65 \mathrm{~km} / \mathrm{h}$. How long did Mei drive before Julia caught up?

## Answers to Assignment (ID: 6)

| 1) $60 \mathrm{~km} / \mathrm{h}$ | 2) $239 \mathrm{~km} / \mathrm{h}$ | 3) 5 hours | 4) 1 hour |
| :--- | :--- | :--- | :--- |
| 5) 2 hours | 6) 60 mph | 7) 3 hours | 8) 5 hours |
| 9) $79 \mathrm{~km} / \mathrm{h}$ | 10) 30 mph | 11) 265 mph | 12) 11 hours |
| 13) 60 mph | 14) $40 \mathrm{~km} / \mathrm{h}$ | 15) $385 \mathrm{~km} / \mathrm{h}$ | 16) 3 hours |
| 17) 12 hours | 18) 25 mph | 19) 4 hours | 20) 4 hours |
| 21) 5 hours | 22) $20 \mathrm{~km} / \mathrm{h}$ | 23) $40 \mathrm{~km} / \mathrm{h}$ | 24) 5 hours |

## Assignment

1) A container ship made a trip to a navigational buoy and back. The trip there took ten hours and the trip back took eight hours. It averaged $25 \mathrm{~km} / \mathrm{h}$ on the return trip. Find the average speed of the trip there.
2) Julia left the science museum and traveled toward the recycling plant. Jenny left one hour later traveling at 36 mph in an effort to catch up to Julia. After traveling for five hours Jenny finally caught up. Find Julia's average speed.
3) Amanda traveled to her cabin on the lake and back. The trip there took five hours and the trip back took six hours. What was Amanda's average speed on the trip there if she averaged 25 mph on the return trip?
4) A passenger train made a trip to the fueling station and back. The trip there took ten hours and the trip back took six hours. It averaged $18 \mathrm{~km} / \mathrm{h}$ faster on the return trip than on the outbound trip. What was the passenger train's average speed on the outbound trip?
5) Castel drove to the recycling plant and back. It took two hours longer to go there than it did to come back. The average speed on the trip there was 40 mph . The average speed on the way back was 60 mph . How many hours did the trip there take?
6) A passenger train made a trip to the repair yards and back. On the trip there it traveled 72 mph and on the return trip it went 80 mph . How long did the trip there take if the return trip took 18 hours?

Date $\qquad$ Period $\qquad$
2) Eugene left Scott's house and drove west. One hour later Mei left driving 6 mph faster in an effort to catch up to him. After five hours Mei finally caught up. What was Eugene's average speed?
4) A cattle train left Berlin and traveled east at an average speed of 87 mph . A passenger train left three hours later and traveled in the opposite direction with an average speed of 15 mph . Find the number of hours the passenger train needs to travel before the trains are 1281 mi . apart.
6) Nicole left home at the same time as Adam. They drove in opposite directions. Adam drove at a speed of $40 \mathrm{~km} / \mathrm{h}$. After three hours they were 210 km apart. How fast did Nicole drive?
8) Alberto left school and traveled toward the town hall at an average speed of $50 \mathrm{~km} / \mathrm{h}$. Some time later Brenda left traveling in the opposite direction with an average speed of $70 \mathrm{~km} / \mathrm{h}$. After Alberto had traveled for four hours they were 480 km apart. How long did Brenda travel?
10) A cargo plane and an Air Force plane left the airport at the same time. The planes flew in opposite directions. The Air Force plane flew 130 mph faster than the cargo plane. After five hours they were 3300 mi . apart. Find the cargo plane's speed.
12) Aliyah left the hardware store and traveled toward the lake at an average speed of 80 mph . Some time later Jennifer left traveling in the opposite direction with an average speed of 55 mph . After Aliyah had traveled for five hours they were 620 mi . apart. How long did Jennifer travel?
14) An Air Force plane made a trip to Jakarta and back. The trip there took six hours and the trip back took ten hours. It averaged 156 $\mathrm{km} / \mathrm{h}$ faster on the trip there than on the return trip. Find the Air Force plane's average speed on the outbound trip.
16) Norachai left the hospital and traveled toward the ocean at an average speed of 25 $\mathrm{km} / \mathrm{h}$. Some time later Heather left traveling in the opposite direction with an average speed of $60 \mathrm{~km} / \mathrm{h}$. After Norachai had traveled for six hours they were 510 km apart. Find the number of hours Heather traveled.
18) Matt left the hardware store at the same time as Norachai. They drove in opposite directions. Norachai drove at a speed of 60 mph . After six hours they were 480 mi . apart. How fast did Matt drive?
20) A passenger train left Berlin and traveled toward New York at an average speed of 85 mph . A freight train left two hours later and traveled in the opposite direction with an average speed of 60 mph . How long does the freight train need to travel before the trains are 1910 mi . apart?
13) Ming left home and drove toward her cabin on the lake at an average speed of $45 \mathrm{~km} / \mathrm{h}$. Lisa left two hours later and drove in the same direction but with an average speed of $75 \mathrm{~km} / \mathrm{h}$. How long did Ming drive before Lisa caught up?
15) Abhasra left the movie theater and traveled south. Jimmy left one hour later traveling at $40 \mathrm{~km} / \mathrm{h}$ in an effort to catch up to Abhasra. After traveling for three hours Jimmy finally caught up. What was Abhasra's average speed?
17) A cruise ship made a trip to a navigational buoy and back. The trip there took ten hours and the trip back took nine hours. It averaged 3 mph faster on the return trip than on the outbound trip. Find the cruise ship's average speed on the outbound trip.
19) Bill left home and traveled toward the dump. One hour later Jaidee left traveling 20 mph faster in an effort to catch up to him. After three hours Jaidee finally caught up. Find Bill's average speed.
21) An aircraft carrier left Hawaii and traveled toward St. Vincent at an average speed of 18 $\mathrm{km} / \mathrm{h}$. Some time later a fishing boat left traveling in the same direction but at an average speed of $21 \mathrm{~km} / \mathrm{h}$. After traveling for six hours the fishing boat caught up with the aircraft carrier. Find the number of hours the aircraft carrier traveled before the fishing boat caught up.
22) Beth left Rob's house one hour before Stefan. They traveled in opposite directions. Stefan traveled at $60 \mathrm{~km} / \mathrm{h}$ for one hour. After this time they were 120 km apart. What was Beth's speed?
24) A jet flew to Moscow and back. It took three hours longer to go there than it did to come back. The average speed on the trip there was 200 mph . The average speed on the way back was 275 mph . How many hours did the trip there take?
23) Kristin left Kathryn's house and traveled toward the ferry office. Ming left two hours later traveling $16 \mathrm{~km} / \mathrm{h}$ faster in an effort to catch up to her. After three hours Ming finally caught up. What was Kristin's average speed?

## Answers to Assignment (ID: 7)

| 1) $20 \mathrm{~km} / \mathrm{h}$ | 2) 30 mph | 3) 30 mph | 4) 10 hours |
| :--- | :--- | :--- | :--- |
| 5) 30 mph | 6) $30 \mathrm{~km} / \mathrm{h}$ | 7) $27 \mathrm{~km} / \mathrm{h}$ | 8) 4 hours |
| 9) 6 hours | 10) 265 mph | 11) 20 hours | 12) 4 hours |
| 13) 5 hours | 14) $390 \mathrm{~km} / \mathrm{h}$ | 15) $30 \mathrm{~km} / \mathrm{h}$ | 16) 6 hours |
| 17) 27 mph | 18) 20 mph | 19) 60 mph | 20) 12 hours |
| 21) 7 hours | 22) $30 \mathrm{~km} / \mathrm{h}$ | 23) $24 \mathrm{~km} / \mathrm{h}$ | 24) 11 hours |

1) $20 \mathrm{~km} / \mathrm{h}$
2) 30 mph
3) $30 \mathrm{~km} / \mathrm{h}$
4) 265 mph
5) $390 \mathrm{~km} / \mathrm{h}$
6) 20 mph
7) $30 \mathrm{~km} / \mathrm{h}$
8) 30 mph
9) $27 \mathrm{~km} / \mathrm{h}$
10) 4 hours
11) 4 hours
12) 6 hours
13) 12 hour
14) 11 hours

## Assignment

1) A container ship left the Dania Pier and traveled east at an average speed of 18 mph . A cruise ship left three hours later and traveled in the same direction but with an average speed of 27 mph . Find the number of hours the container ship traveled before the cruise ship caught up.
2) Maria made a trip to her cabin on the lake and back. On the trip there she drove 40 $\mathrm{km} / \mathrm{h}$ and on the return trip she went 50 $\mathrm{km} / \mathrm{h}$. How long did the trip there take if the return trip took four hours?
3) Lea left Lisa's house and traveled toward the dump at an average speed of $30 \mathrm{~km} / \mathrm{h}$. Carlos left three hours later and traveled in the same direction but with an average speed of $75 \mathrm{~km} / \mathrm{h}$. Find the number of hours Lea traveled before Carlos caught up.
4) A jet left Sydney and flew west. An Air Force plane left two hours later flying at 375 $\mathrm{km} / \mathrm{h}$ in an effort to catch up to the jet. After flying for eight hours the Air Force plane finally caught up. Find the jet's average speed.
5) Daniel left the mall and traveled toward the recycling plant at an average speed of 24 mph . Chelsea left one hour later and traveled in the same direction but with an average speed of 30 mph . How long did Daniel travel before Chelsea caught up?

Date $\qquad$ Period $\qquad$
2) An Air Force plane left Nairobi and flew south. Two hours later a cargo plane left flying at 350 mph in an effort to catch up to the Air Force plane. After flying for five hours the cargo plane finally caught up. Find the Air Force plane's average speed.
4) A diesel train traveled to the repair yards and back. It took three hours longer to go there than it did to come back. The average speed on the trip there was 28 mph . The average speed on the way back was 40 mph . How many hours did the trip there take?
6) A container ship traveled to Guam and back. The trip there took ten hours and the trip back took four hours. It averaged $9 \mathrm{~km} / \mathrm{h}$ faster on the return trip than on the outbound trip. Find the container ship's average speed on the outbound trip.
8) Chelsea made a trip to the recycling plant and back. The trip there took two hours and the trip back took five hours. She averaged 24 mph on the return trip. Find the average speed of the trip there.
10) A cruise ship left Port 29 and traveled south. A fishing boat left one hour later traveling at 30 mph in an effort to catch up to the cruise ship. After traveling for two hours the fishing boat finally caught up. Find the cruise ship's average speed.
11) Carlos left the movie theater driving west two hours before Ashley. Ashley drove in the opposite direction going 55 mph faster then Carlos for one hour after which time they were 135 mi . apart. How fast did Carlos drive?
13) A cattle train left the station and traveled south at an average speed of $60 \mathrm{~km} / \mathrm{h}$. A diesel train left some time later traveling in the opposite direction with an average speed of $80 \mathrm{~km} / \mathrm{h}$. After the cattle train had traveled for 18 hours the trains were 2520 km apart. Find the number of hours the diesel train traveled.
15) Kathryn left home driving toward the desert one hour before Joe. Joe drove in the opposite direction going 10 mph slower then Kathryn for two hours after which time they were 130 mi . apart. What was Kathryn's speed?
17) A passenger train left Abuja and traveled south at an average speed of 15 mph . Some time later a cattle train left traveling in the opposite direction with an average speed of 65 mph . After the passenger train had traveled for nine hours the trains were 720 mi. apart. How long did the cattle train travel?
19) Totsakan left the hardware store driving toward the lake two hours before James. James drove in the opposite direction going $20 \mathrm{~km} / \mathrm{h}$ slower then Totsakan for two hours after which time they were 200 km apart. What was Totsakan's speed?
12) Micaela drove to her cabin on the lake and back. It took one hour longer to go there than it did to come back. The average speed on the trip there was $45 \mathrm{~km} / \mathrm{h}$. The average speed on the way back was $60 \mathrm{~km} / \mathrm{h}$. How many hours did the trip there take?
14) Shanice traveled to the ferry office and back. The trip there took five hours and the trip back took six hours. What was Shanice's average speed on the trip there if she averaged $65 \mathrm{~km} / \mathrm{h}$ on the return trip?
16) An aircraft carrier traveled to Tahiti and back. It took two hours less time to get there than it did to get back. The average speed on the trip there was 15 mph . The average speed on the way back was 9 mph . How many hours did the trip there take?
18) Sumalee drove to the lake and back. It took one hour longer to go there than it did to come back. The average speed on the trip there was 30 mph . The average speed on the way back was 40 mph . How many hours did the trip there take?
20) A cattle train traveled to New York and back. On the trip there it traveled $50 \mathrm{~km} / \mathrm{h}$ and on the return trip it went $20 \mathrm{~km} / \mathrm{h}$. How long did the trip there take if the return trip took 20 hours?
21) Mary drove to her friend's house and back. It took two hours less time to get there than it did to get back. The average speed on the trip there was $65 \mathrm{~km} / \mathrm{h}$. The average speed on the way back was $39 \mathrm{~km} / \mathrm{h}$. How many hours did the trip there take?
23) A container ship left Hawaii at the same time as a cruise ship. The ships traveled in opposite directions. The cruise ship traveled at a speed of 25 mph . After 11 hours they were 495 mi . apart. How fast did the container ship travel?
22) Lisa left school and drove toward the ferry office. One hour later Kristin left driving 4 $\mathrm{km} / \mathrm{h}$ faster in an effort to catch up to her. After five hours Kristin finally caught up. Find Lisa's average speed.
24) Amy made a trip to her friend's house and back. On the trip there she traveled 25 mph and on the return trip she went 20 mph . How long did the trip there take if the return trip took five hours?

## Answers to Assignment (ID: 8)

| 1) 9 hours | 2) 250 mph | 3) 5 hours | 4) 10 hours |
| :--- | :--- | :--- | :--- |
| 5) 5 hours | 6) $6 \mathrm{~km} / \mathrm{h}$ | 7) $300 \mathrm{~km} / \mathrm{h}$ | 8) 60 mph |
| 9) 5 hours | 10) 20 mph | 11) 20 mph | 12) 4 hours |
| 13) 18 hours | 14) $78 \mathrm{~km} / \mathrm{h}$ | 15) 30 mph | 16) 3 hours |
| 17) 9 hours | 18) 4 hours | 19) $40 \mathrm{~km} / \mathrm{h}$ | 20) 8 hours |
| 21) 3 hours | 22) $20 \mathrm{~km} / \mathrm{h}$ | 23) 20 mph | 24) 4 hours |

3) 5 hours
4) $300 \mathrm{~km} / \mathrm{h}$
5) 20 mph
6) 30 mph
7) $40 \mathrm{~km} / \mathrm{h}$
8) 20 mph
9) 10 hours
10) 60 mph
11) 4 hours
12) 3 hours
13) 8 hours
14) 4 hours

## Assignment

1) Mofor left the hospital and drove toward the train station at an average speed of 60 mph . Krystal left at the same time and drove in the opposite direction with an average speed of 65 mph . How long does Krystal need to drive before they are 500 mi . apart?
2) Jill left the airport at the same time as John. They traveled in opposite directions. John traveled at a speed of $35 \mathrm{~km} / \mathrm{h}$. After four hours they were 240 km apart. How fast did Jill travel?
3) A cargo plane left Los Angeles and flew toward Moscow at an average speed of 232 $\mathrm{km} / \mathrm{h}$. A passenger plane left four hours later and flew in the opposite direction with an average speed of $281 \mathrm{~km} / \mathrm{h}$. How long does the passenger plane need to fly before the planes are 5032 km apart?
4) Jessica made a trip to the town hall and back. The trip there took three hours and the trip back took two hours. She averaged 20 mph faster on the return trip than on the outbound trip. Find Jessica's average speed on the outbound trip.
5) A passenger plane made a trip to the maintenance facility and back. On the trip there it flew 312 mph and on the return trip it went 390 mph . How long did the trip there take if the return trip took four hours?

Date $\qquad$ Period $\qquad$
2) An Air Force plane left New York and flew south. A jet left two hours later flying at 350 mph in an effort to catch up to the Air Force plane. After flying for five hours the jet finally caught up. Find the Air Force plane's average speed.
4) Mark left the mall and traveled east at an average speed of $20 \mathrm{~km} / \mathrm{h}$. Bill left one hour later and traveled in the same direction but with an average speed of $30 \mathrm{~km} / \mathrm{h}$. How long did Mark travel before Bill caught up?
6) A passenger train left Abuja and traveled south at an average speed of 55 mph . Some time later a cattle train left traveling in the same direction but at an average speed of 88 mph . After traveling for ten hours the cattle train caught up with the passenger train. How long did the passenger train travel before the cattle train caught up?
8) Jacob left the White House and traveled toward the dump at an average speed of 65 mph . Sarawong left one hour later and traveled in the same direction but with an average speed of 78 mph . How long did Jacob travel before Sarawong caught up?
10) An aircraft carrier left the Azores and traveled south. A container ship left four hours later traveling $4 \mathrm{~km} / \mathrm{h}$ faster in an effort to catch up to it. After nine hours the container ship finally caught up. What was the aircraft carrier's average speed?
11) Stephanie made a trip to her cabin on the lake and back. The trip there took four hours and the trip back took five hours. She averaged $15 \mathrm{~km} / \mathrm{h}$ faster on the trip there than on the return trip. Find Stephanie's average speed on the outbound trip.
13) Eduardo left the hardware store and drove toward the ferry office at an average speed of 30 mph . Some time later Carlos left driving in the same direction but at an average speed of 45 mph . After driving for four hours Carlos caught up with Eduardo. Find the number of hours Eduardo drove before Carlos caught up.
15) A passenger train traveled to the outer-most station and back. The trip there took 17 hours and the trip back took nine hours. It averaged 40 mph faster on the return trip than on the outbound trip. What was the passenger train's average speed on the outbound trip?
17) A cargo plane left London and flew toward the airshow. An Air Force plane left four hours later flying at 495 mph in an effort to catch up to the cargo plane. After flying for seven hours the Air Force plane finally caught up. Find the cargo plane's average speed.
19) A cargo plane flew to the airshow and back. The trip there took ten hours and the trip back took nine hours. What was the cargo plane's average speed on the trip there if it averaged $280 \mathrm{~km} / \mathrm{h}$ on the return trip?
12) A container ship left Port 29 and traveled south. One hour later an aircraft carrier left traveling at $27 \mathrm{~km} / \mathrm{h}$ in an effort to catch up to the container ship. After traveling for eight hours the aircraft carrier finally caught up. Find the container ship's average speed.
14) Elisa left the White House and traveled toward the town hall. Molly left one hour later traveling 20 mph faster in an effort to catch up to her. After three hours Molly finally caught up. Find Elisa's average speed.
16) Molly traveled to the train station and back. It took two hours less time to get there than it did to get back. The average speed on the trip there was 75 mph . The average speed on the way back was 45 mph . How many hours did the trip there take?
18) Stefan left school and traveled toward the dump at an average speed of $53 \mathrm{~km} / \mathrm{h}$. Castel left at the same time and traveled in the opposite direction with an average speed of $63 \mathrm{~km} / \mathrm{h}$. Find the number of hours Castel needs to travel before they are 464 km apart.
20) A passenger plane left Nairobi and flew toward Las Vegas at an average speed of $300 \mathrm{~km} / \mathrm{h}$. A jet left one hour later and flew in the opposite direction with an average speed of $400 \mathrm{~km} / \mathrm{h}$. How long does the jet need to fly before the planes are 3800 km apart?
21) Sarawong traveled to the ferry office and back. It took one hour less time to get there than it did to get back. The average speed on the trip there was $24 \mathrm{~km} / \mathrm{h}$. The average speed on the way back was $20 \mathrm{~km} / \mathrm{h}$. How many hours did the trip there take?
23) Jimmy made a trip to the recycling plant and back. The trip there took five hours and the trip back took four hours. What was Jimmy's average speed on the trip there if he averaged 25 mph on the return trip?
22) Mike left home and traveled toward the town hall at an average speed of 60 mph . Some time later Daniel left traveling in the opposite direction with an average speed of 70 mph . After Mike had traveled for five hours they were 580 mi . apart. Find the number of hours Daniel traveled.
24) John left school driving south four hours before Chelsea. Chelsea drove in the opposite direction going 30 mph faster then John for one hour after which time they were 210 mi. apart. How fast did John drive?

## Answers to Assignment (ID: 9)

| 1) 4 hours | 2) 250 mph | 3) $25 \mathrm{~km} / \mathrm{h}$ | 4) 3 hours |
| :--- | :--- | :--- | :--- |
| 5) 8 hours | 6) 16 hours | 7) 40 mph | 8) 6 hours |
| 9) 5 hours | 10) $9 \mathrm{~km} / \mathrm{h}$ | 11) $75 \mathrm{~km} / \mathrm{h}$ | 12) $24 \mathrm{~km} / \mathrm{h}$ |
| 13) 6 hours | 14) 60 mph | 15) 45 mph | 16) 3 hours |
| 17) 315 mph | 18) 4 hours | 19) $252 \mathrm{~km} / \mathrm{h}$ | 20) 5 hours |
| 21) 5 hours | 22) 4 hours | 23) 20 mph | 24) 30 mph |

1) 4 hours
2) 8 hours
3) 5 hours
4) 6 hours
5) 315 mph
6) 5 hours
7) 250 mph
8) 16 hours
9) $9 \mathrm{~km} / \mathrm{h}$
10) 60 mph
11) 4 hours
12) 4 hours
13) $25 \mathrm{~km} / \mathrm{h}$
14) 3 hours
15) 6 hours
16) $24 \mathrm{~km} / \mathrm{h}$
17) 3 hours
18) 5 hours
19) 30 mph

## Assignment

1) A diesel train left Bangalore 16 hours before a freight train. The trains traveled in opposite directions. The freight train traveled at $30 \mathrm{~km} / \mathrm{h}$ for four hours. After this time the trains were 1720 km apart. Find the diesel train's speed.
2) Ndiba drove to his friend's house and back. The trip there took two hours and the trip back took five hours. He averaged $45 \mathrm{~km} / \mathrm{h}$ faster on the trip there than on the return trip. What was Ndiba's average speed on the outbound trip?
3) A cruise ship left Diego Garcia and traveled west at an average speed of 15 mph . Some time later a fishing boat left traveling in the same direction but at an average speed of 18 mph . After traveling for five hours the fishing boat caught up with the cruise ship. How long did the cruise ship travel before the fishing boat caught up?
4) Mei left the movie theater and drove toward the recycling plant. Jenny left one hour later driving 10 mph faster in an effort to catch up to her. After four hours Jenny finally caught up. What was Mei's average speed?
5) Eugene left the White House and drove toward his cabin on the lake at an average speed of $70 \mathrm{~km} / \mathrm{h}$. Jill left four hours later and drove in the opposite direction with an average speed of $70 \mathrm{~km} / \mathrm{h}$. How long does Jill need to drive before they are 420 km apart?

Date $\qquad$ Period $\qquad$
2) A container ship traveled to dry dock and back. It took one hour longer to go there than it did to come back. The average speed on the trip there was $10 \mathrm{~km} / \mathrm{h}$. The average speed on the way back was $11 \mathrm{~km} / \mathrm{h}$. How many hours did the trip there take?
4) Brenda left the hardware store and drove toward her friend's house. Jessica left one hour later driving at $42 \mathrm{~km} / \mathrm{h}$ in an effort to catch up to Brenda. After driving for five hours Jessica finally caught up. What was Brenda's average speed?
6) James left school traveling toward the capital two hours before Joe. Joe traveled in the opposite direction going 41 mph slower then James for four hours after which time they were 516 mi . apart. How fast did James travel?
8) A freight train left Abuja at the same time as a diesel train. The trains traveled in opposite directions. The diesel train traveled at a speed of 30 mph . After four hours they were 160 mi. apart. How fast did the freight train travel?
10) A diesel train left Berlin and traveled toward Johannesburg at an average speed of 30 $\mathrm{km} / \mathrm{h}$. A cattle train left some time later traveling in the same direction at an average speed of $45 \mathrm{~km} / \mathrm{h}$. After traveling for eight hours the cattle train caught up with the diesel train. Find the number of hours the diesel train traveled before the cattle train caught up.
11) A cattle train left Bangalore and traveled toward Johannesburg. 11 hours later a diesel train left traveling at $60 \mathrm{~km} / \mathrm{h}$ in an effort to catch up to the cattle train. After traveling for nine hours the diesel train finally caught up. What was the cattle train's average speed?
13) Nicole left the science museum and drove toward the lake at an average speed of 40 mph . Asanji left one hour later and drove in the same direction but with an average speed of 60 mph . Find the number of hours Nicole drove before Asanji caught up.
15) A diesel train left Seoul and traveled toward the outer-most station. A cattle train left 12 hours later traveling at 25 mph in an effort to catch up to the diesel train. After traveling for eight hours the cattle train finally caught up. What was the diesel train's average speed?
17) Cody left the airport and drove toward the lake at an average speed of $36 \mathrm{~km} / \mathrm{h}$. Jennifer left two hours later and drove in the same direction but with an average speed of $60 \mathrm{~km} / \mathrm{h}$. How long did Cody drive before Jennifer caught up?
19) A passenger train left Miami and traveled toward Johannesburg. A freight train left two hours later traveling at $70 \mathrm{~km} / \mathrm{h}$ in an effort to catch up to the passenger train. After traveling for three hours the freight train finally caught up. What was the passenger train's average speed?
21) Abhasra traveled to the recycling plant and back. It took one hour longer to go there than it did to come back. The average speed on the trip there was 56 mph . The average speed on the way back was 70 mph . How many hours did the trip there take?
12) A cruise ship left Port 24 and traveled toward Guam at an average speed of 16 $\mathrm{km} / \mathrm{h}$. A submarine left at the same time and traveled in the opposite direction with an average speed of $23 \mathrm{~km} / \mathrm{h}$. Find the number of hours the submarine needs to travel before the ships are 468 km apart.
14) Danielle left Nicole's house and drove toward the recycling plant at an average speed of 75 mph . Beth left some time later driving in the opposite direction with an average speed of 75 mph . After Danielle had driven for six hours they were 600 mi . apart. How long did Beth drive?
16) Castel traveled to the train station and back. The trip there took four hours and the trip back took three hours. He averaged 15 km/h faster on the return trip than on the outbound trip. What was Castel's average speed on the outbound trip?
18) A cargo plane made a trip to the airshow and back. The trip there took six hours and the trip back took four hours. What was the cargo plane's average speed on the trip there if it averaged $270 \mathrm{~km} / \mathrm{h}$ on the return trip?
20) Ming left the science museum and traveled toward the dump at an average speed of 45 $\mathrm{km} / \mathrm{h}$. Some time later Shayna left traveling in the same direction but at an average speed of $75 \mathrm{~km} / \mathrm{h}$. After traveling for three hours Shayna caught up with Ming. Find the number of hours Ming traveled before Shayna caught up.
22) A passenger plane left New York and flew toward the airshow at an average speed of 220 mph . Some time later a cargo plane left flying in the same direction but at an average speed of 330 mph . After flying for eight hours the cargo plane caught up with the passenger plane. Find the number of hours the passenger plane flew before the cargo plane caught up.
24) A jet flew to the maintenance facility and back. The trip there took five hours and the trip back took nine hours. It averaged 160 $\mathrm{km} / \mathrm{h}$ on the return trip. Find the average speed of the trip there.
23) Norachai left the hardware store and traveled toward the train station. Sumalee left one hour later traveling 6 mph faster in an effort to catch up to him. After four hours Sumalee finally caught up. What was Norachai's average speed?

## Answers to Assignment (ID: 10)

| 1) $80 \mathrm{~km} / \mathrm{h}$ | 2) 11 hours | 3) $75 \mathrm{~km} / \mathrm{h}$ | 4) $35 \mathrm{~km} / \mathrm{h}$ |
| :--- | :--- | :--- | :--- |
| 5) 6 hours | 6) 68 mph | 7) 40 mph | 8) 10 mph |
| 9) 1 hour | 10) 12 hours | 11) $27 \mathrm{~km} / \mathrm{h}$ | 12) 12 hours |
| 13) 3 hours | 14) 2 hours | 15) 10 mph | 16) $45 \mathrm{~km} / \mathrm{h}$ |
| 17) 5 hours | 18) $180 \mathrm{~km} / \mathrm{h}$ | 19) $42 \mathrm{~km} / \mathrm{h}$ | 20) 5 hours |
| 21) 5 hours | 22) 12 hours | 23) 24 mph | 24) $288 \mathrm{~km} / \mathrm{h}$ |

1) $80 \mathrm{~km} / \mathrm{h}$
2) 11 hours
3) 68 mph
4) 12 hours
5) 2 hours
6) $180 \mathrm{~km} / \mathrm{h}$
7) 12 hours
8) $75 \mathrm{~km} / \mathrm{h}$
9) 40 mph
10) $27 \mathrm{~km} / \mathrm{h}$
11) 10 mph
12) $42 \mathrm{~km} / \mathrm{h}$
13) 24 mph
14) $35 \mathrm{~km} / \mathrm{h}$
15) 10 mph
16) 12 hours
17) $45 \mathrm{~km} / \mathrm{h}$
18) 5 hours
19) $288 \mathrm{~km} / \mathrm{h}$
