

Assignment #3 Mixture, Distance, Work Problems

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Date_____ Period____

These are some more Mixture Problems. Please show all work for these problems.

- 1) Bill's Premium Molasses which costs \$3/oz is made by combining cane molasses which costs \$1/oz with beet molasses which costs \$4/oz. Find the number of oz of cane molasses and beet molasses required to make 6 oz of Bill's Premium Molasses.
- 2) Brand M Cinnamon which costs \$15/kg is made by combining Indonesian cinnamon which costs \$18/kg with Thai cinnamon which costs \$12/kg. Find the number of kg of Indonesian cinnamon and Thai cinnamon required to make 18 kg of Brand M Cinnamon.

These are also Mixture Problems. Please show all work for these problems.

- 3) Fruit salad which costs \$6/oz is made by combining sliced peaches which cost \$5/oz with sliced bananas which cost \$9/oz. Find the number of oz of sliced peaches and sliced bananas required to make 8 oz of fruit salad.
- 4) Beth's Premium Coffee Blend which costs \$10/kg is made by combining arabica coffee beans which cost \$12/kg with robusta coffee beans which cost \$6/kg. Find the number of kg of arabica coffee beans and robusta coffee beans required to make 6 kg of Beth's Premium Coffee Blend.

Yet more Mixture Problems. Please show all work for these problems.

5) Kristin wants to make 20 ml of a 60% acid solution by mixing together a 84% acid solution and a 44% acid solution. How much of each solution must she use?

6) Bronze which costs \$3/lb is made by combining copper which costs \$2/lb with tin which costs \$9/lb. Find the number of lb of copper and tin required to make 14 lb of bronze.

These are Travel and distance problems. Please show all work for these problems.

7) A diesel train traveled to the repair yards and back. It took 11 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 85 mph. How many hours did the trip there take?

8) Julio drove to the town hall and back. The trip there took five hours and the trip back took four hours. What was Julio's average speed on the trip there if he averaged 75 km/h on the return trip?

9) A fishing boat left the Dania Pier and traveled west at an average speed of 15 km/h. A cruise ship left two hours later and traveled in the same direction but with an average speed of 18 km/h. Find the number of hours the fishing boat traveled before the cruise ship caught up.

10) Maria left the White House and traveled south. Three hours later Jenny left traveling at 65 km/h in an effort to catch up to Maria. After traveling for two hours Jenny finally caught up. What was Maria's average speed?

Thses are Work Problems. Solve each question. Round your answer to the nearest hundredth.

11) It takes Dan ten hours to oil the lanes in a bowling alley. Castel can oil the same lanes in six hours. If they worked together how long would it take them?

12) Mei can oil the lanes in a bowling alley in five hours. Micaela can oil the same lanes in six hours. Find how long it would take them if they worked together.

13) Working alone, Kali can pick forty bushels of apples in nine hours. Jaidee can pick the same amount in six hours. How long would it take them if they worked together?

14) It takes Norachai seven hours to mop a warehouse. Carlos can mop the same warehouse in six hours. Find how long it would take them if they worked together.

15) Jaidee can paint a fence in 8.2 hours. Eugene can paint the same fence in 8.8 hours. Find how long it would take them if they worked together.

16) Working alone, Totsakan can sweep a porch in 14 minutes. Amanda can sweep the same porch in 15 minutes. If they worked together how long would it take them?

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These are some more Mixture Problems. Please show all work for these problems.

1) Bill's Premium Molasses which costs \$3/oz is made by combining cane molasses which costs \$1/oz with beet molasses which costs \$4/oz. Find the number of oz of cane molasses and beet molasses required to make 6 oz of Bill's Premium Molasses.

2 oz of cane molasses, 4 oz of beet molasses

2) Brand M Cinnamon which costs \$15/kg is made by combining Indonesian cinnamon which costs \$18/kg with Thai cinnamon which costs \$12/kg. Find the number of kg of Indonesian cinnamon and Thai cinnamon required to make 18 kg of Brand M Cinnamon.

9 kg of Indonesian cinnamon, 9 kg of Thai cinnamon

These are also Mixture Problems. Please show all work for these problems.

3) Fruit salad which costs \$6/oz is made by combining sliced peaches which cost \$5/oz with sliced bananas which cost \$9/oz. Find the number of oz of sliced peaches and sliced bananas required to make 8 oz of fruit salad.

6 oz of sliced peaches, 2 oz of sliced bananas

4) Beth's Premium Coffee Blend which costs \$10/kg is made by combining arabica coffee beans which cost \$12/kg with robusta coffee beans which cost \$6/kg. Find the number of kg of arabica coffee beans and robusta coffee beans required to make 6 kg of Beth's Premium Coffee Blend.

4 kg of arabica coffee beans, 2 kg of robusta coffee beans

Yet more Mixture Problems. Please show all work for these problems.

5) Kristin wants to make 20 ml of a 60% acid solution by mixing together a 84% acid solution and a 44% acid solution. How much of each solution must she use?

8 ml of 84% solution, 12 ml of 44% solution

6) Bronze which costs \$3/lb is made by combining copper which costs \$2/lb with tin which costs \$9/lb. Find the number of lb of copper and tin required to make 14 lb of bronze.

12 lb of copper, 2 lb of tin

These are Travel and distance problems. Please show all work for these problems.

7) A diesel train traveled to the repair yards and back. It took 11 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 85 mph. How many hours did the trip there take?

17 hours

8) Julio drove to the town hall and back. The trip there took five hours and the trip back took four hours. What was Julio's average speed on the trip there if he averaged 75 km/h on the return trip?

60 km/h

9) A fishing boat left the Dania Pier and traveled west at an average speed of 15 km/h. A cruise ship left two hours later and traveled in the same direction but with an average speed of 18 km/h. Find the number of hours the fishing boat traveled before the cruise ship caught up.

12 hours

10) Maria left the White House and traveled south. Three hours later Jenny left traveling at 65 km/h in an effort to catch up to Maria. After traveling for two hours Jenny finally caught up. What was Maria's average speed?

26 km/h

Thses are Work Problems. Solve each question. Round your answer to the nearest hundredth.

11) It takes Dan ten hours to oil the lanes in a bowling alley. Castel can oil the same lanes in six hours. If they worked together how long would it take them?

3.75 hours

12) Mei can oil the lanes in a bowling alley in five hours. Micaela can oil the same lanes in six hours. Find how long it would take them if they worked together.

2.73 hours

13) Working alone, Kali can pick forty bushels of apples in nine hours. Jaidee can pick the same amount in six hours. How long would it take them if they worked together?

3.6 hours

14) It takes Norachai seven hours to mop a warehouse. Carlos can mop the same warehouse in six hours. Find how long it would take them if they worked together.

3.23 hours

15) Jaidee can paint a fence in 8.2 hours. Eugene can paint the same fence in 8.8 hours. Find how long it would take them if they worked together.

4.24 hours

16) Working alone, Totsakan can sweep a porch in 14 minutes. Amanda can sweep the same porch in 15 minutes. If they worked together how long would it take them?

7.24 minutes