

1. If you invest \$3200 at 4.5% APR for five and a half years, how much interest is earned?

$$I = P*r*t$$

2. You are selling tickets for the new musical. Adult tickets are \$6 and student tickets are \$3.50. You have sold 399 tickets total and collected \$2004. Unfortunately, you lost your track of what type of tickets were sold. How many of each type of ticket is sold? How much revenue is from each type of ticket?

3. The perimeter of a rectangle is 500m. If five times the width is 4 more than twice the length, find the dimensions of the rectangle.

4. Miss Jeon invests some money at 6% rate and \$3000 more than this at 9% rate. If the total interest earned in one year is \$4170, how much was invested at each rate?

5. Two bicycles start at the same point traveling in the opposite direction. The speed of the second bike is 12 mph less than three times the first. At the end of 6 hours, the bicycles are 144 miles apart. Find the speed of each bicycle.

6. A train leaves the Sanford terminal averaging 45 mph. A second train leaves the same terminal two hours later averaging 60 mph. How long will it take the second train to catch the first train?

7. How many pounds of dogfood that is 50% rice must be mixed with 400 pounds of dogfood that is 80% rice to make a dogfood that is 75% rice?

total lbs of food	% rice	amt of rice
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8. You have 50 ounces of a 25% saline solution (a mixture of water and salt). How many ounces of a 10% solution must you add to make a new solution that is 15% saline?

Total amt of solution	% saline	total amt of saline
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9. In the morning, Elisa drove to a business appointment at 50 mph. Her average speed on the return in the afternoon was 40 mph. The return trip took her  $\frac{1}{4}$  hour longer because of heavy traffic.

How far did she travel to the appointment?

10. A car you bought four years ago is now worth \$15,600. Assuming it loses all marketable value after 20 years of life, what was the cost of the car when it was new?

11. Your new car depreciates at a rate of 11.5% per year. If you paid \$19,500 for it new, how much is it worth in 6 years?