

Story problems practice

NAME:

Remember to define your variable specifically. Write a verbal model before you attempt to form an equation. Then form the equation and solve it. Circle and label your final answer.

1. Blane has a paper route which he can finish in 3 hours. Margarite can finish the same paper route in 4 hours. Today, Margarite is going to help Blane with the paper route. If they work together, how long will it take them to finish the paper route?

2. A 30 gallon barrel of Economy brand cement contains 25% cement and 75% sand. How much pure cement should we add to this barrel so that the mixture is 35% cement?

3. A U.N. plane goes to and from a remote island using the same route. When the plane goes to the island, the wind is behind them pushing them along. When the plane returns from the island, it is flying into the wind and so is slowed down by it. The plane, in steady air, travels at 40 miles per hour. If the trip to the island takes 3 hours and the trip from the island takes $4\frac{1}{2}$ hours, what is the wind speed?

4. A bookstore sells their merchandise for what they paid plus 27%. If I bought a book there for \$38, how much did the bookstore pay for it?

5. Stella and Maria are going into business together. They are each going to borrow money so that they end up with a total of \$5000. Stella borrows her money from her brother who charges 7% simple interest. Maria borrows the money from a bank which charges her 16% simple interest. If they end up paying a total of \$530 in interest, how much has each woman borrowed?

6. A city is planning to build a park which is surrounded by a fence. They are going to put their park in a long, skinny dilapidated lot. So the length will be three times as long as the width. They have a total area available of 5,000 square feet and they want to use all of it. Find the dimensions of the park. Also, tell how much fencing they will need. (In other words, find the dimensions and then the perimeter.)