

Algebra 1
Unit 2, Lesson 5 notes
Use formulas to solve word problems

Area

Triangle:

Rectangle:

Circle:

Distance

Simple Interest

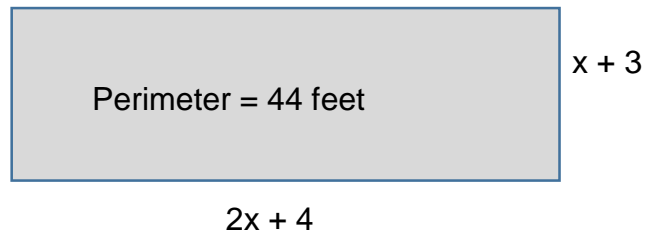
Perimeter –
Rectangle/Square

Circumference

1. Find the height of a triangle if the base is 10 cm and the area is 40 cm.

2. Find the radius of a circle whose circumference is 32 meters.

3. Find the width of the garden:



4. Patricia has a rectangular flower garden that is 10 feet long and 2 feet wide. One bag of soil can cover 10 ft^2 . How many bags will she need to cover the entire garden?

5. The Acela train travels between Boston and Washington, a distance of 457 miles. The trip takes 6.5 hours. What is the average speed of the train?

6. A jet flies at an average speed of 540 miles per hour. How long will it take to fly from New York to Tokyo, a distance of 6,670 miles?

7. Kelly plans to put her graduation money into an account and leave it there for 4 years while she goes to college. She receives \$750 in graduation money that she puts into an account that earns 4.25% simple interest. How much will be in Kelly's account at the end of four years?

8. Jamie wants to earn \$500 in interest so she'll have enough to buy a used car. She puts \$2,000 into an account that earns 5% simple interest. How long will she need to leave her money in the account to earn \$500 in interest?

9. The penny size d of a nail is given by $d = 4n - 2$ where n is the length (in inches) of the nail.
 - a. Solve the formula for n

 - b. Use the new formula to find the lengths of nails with the following penny sizes: 5, 12, 16, and 20.