

An **equation** is a number sentence stating that two amounts are equal.



9. This equation is true.

$$8 = 2 \times 4$$

(a) Add 10 to both sides. Is the equation still true?

$$8 + 10 = (2 \times 4) + 10$$

(b) Add 10 to one side and 2×5 to the other side. Is the equation still true?

$$8 + 10 = (2 \times 4) + (2 \times 5)$$

(c) Multiply both sides by 10. Is the equation still true?


$$8 \times 10 = (2 \times 4) \times 10$$


(d) Multiply one side by 10 and the other side by $(5 + 5)$. Is the equation still true?


$$8 \times 10 = 2 \times 4 \times (5 + 5)$$


If you add or multiply both sides of an equation by the same number, the two sides stay equal.




10. Find the number that goes in the  to make the equation true.

(a) $24 + (15 - 4) =$  $+ 11$

(b) $(4 + 5) \times (3 + 7) =$  $\times 10$

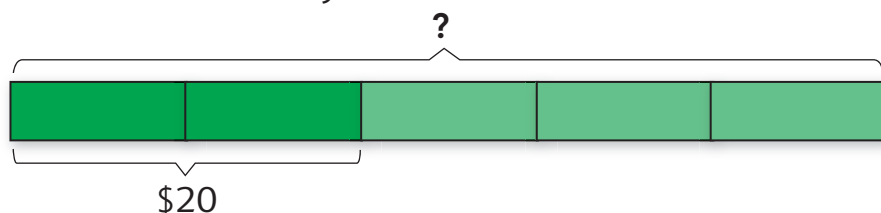
(c) $100 \times (10 \div 5) =$  $\times 2$

(d) $(14 + 10) \div 2 \times 3 =$  $\times 3$

13. David spent $\frac{2}{5}$ of his money on a storybook.

The storybook cost \$20.

How much money did he have at first?



$$2 \text{ units} = \$20$$

$$1 \text{ unit} = \$\square$$

$$5 \text{ units} = \$\square$$

$$\text{He had } \$\square \text{ at first.}$$

Exercise 18, pages 105-106

14. In a class of 40 students, 25 are boys. Express the number of girls as a fraction of the students in the class.

Method 1:

$$40 - 25 = 15$$

There are 15 girls.

$$\frac{15}{40} = \square$$

\square of the students in the class are girls.

First, I find the number of girls.



Method 2:

$$\frac{25}{40} = \frac{5}{8}$$

$\frac{5}{8}$ of the students in the class are boys.

$$1 - \frac{5}{8} = \square$$

\square of the students in the class are girls.

First, I express the number of boys as a fraction of the class.



Exercise 19, pages 107-109

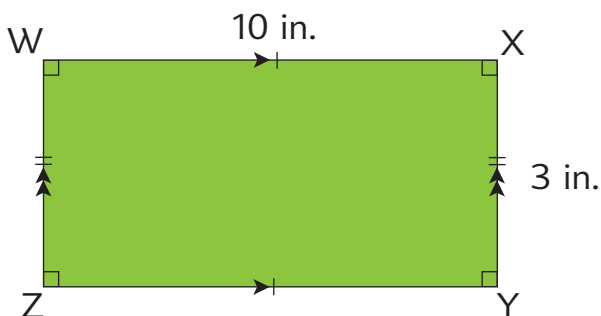
4. Figure WXYZ is a parallelogram with 4 right angles.

What is another name for this figure?

Name each pair of perpendicular sides.

$YZ = \boxed{} \text{ in.}$

$ZW = \boxed{} \text{ in.}$



5. Look at figure QRST.

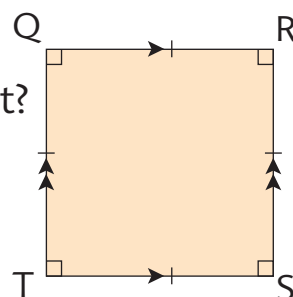
Is figure QRST a trapezoid? Why or why not?

Is figure QRST a parallelogram? Why or why not?

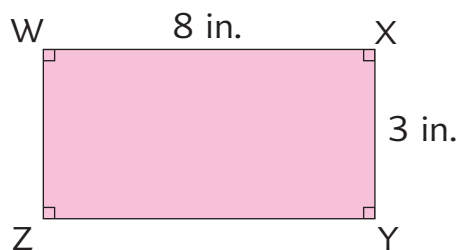
Is figure QRST a rectangle? Why or why not?

Is figure QRST a rhombus? Why or why not?

What is another name for figure QRST?

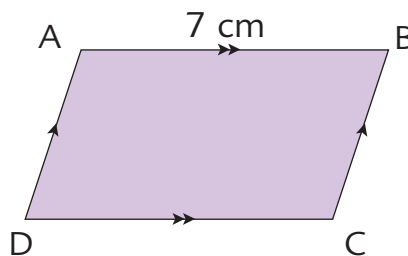


6. Find the lengths of the unknown sides.

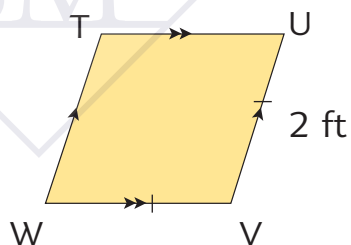


$ZY = \boxed{} \text{ in.}$

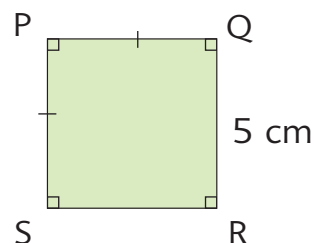
$WZ = \boxed{} \text{ in.}$



$DC = \boxed{} \text{ cm}$



$TU = \boxed{} \text{ ft}$



$SR = \boxed{} \text{ cm}$