Test 1

**SHOW YOUR WORK** Name: _____

1. (a) What is the degree measure of a right angle?

   (b) What is the degree measure of a straight angle?

2. (a) Define *obtuse triangle*.

   (b) Define *scalene triangle*.

3. What is the name of the parallelogram that has four right angles?

4. What name is given to polygons whose sides all have the same length and whose angles all have the same measure?

5. What is the sum of the measures of the three angles of any triangle?

6. The radius of a circle is 5 centimeters. Find the circumference of the circle.

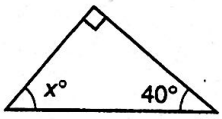
7. The diameter of a circle is 12 inches. Find the circumference of the circle.

8. Use two unit multipliers to convert 36 inches to yards. (Go from inches to feet to yards.)

9. What is another name for the set of counting numbers?

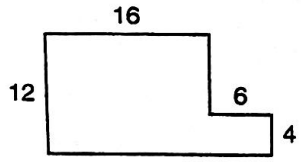
10. The perimeter of a square is 24 meters. What is the length of one side of the square?

11. Find $x$.




Find the perimeters of the following figures. Corners that look square are square. Dimensions are in meters.

12.

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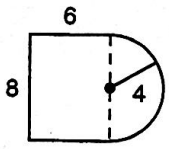



Add, subtract, multiply, or divide as indicated. Write the answers as proper fractions reduced to lowest terms or as mixed numbers.

14. $\frac{5}{2} \times \frac{4}{3} \times \frac{9}{10}$

15. $3\frac{2}{5} + 5\frac{3}{10}$

16. $3\frac{1}{2} \div 5\frac{3}{5}$

17. $\dfrac{12\frac{1}{2}}{3\frac{1}{4}}$

18. $11.922 \div 2.3844$

19. $14\frac{3}{8} - 8\frac{9}{16}$

20. The length of $\overline{AC}$ is $3\frac{2}{3}$ units. The length of $\overline{AB}$ is $1\frac{5}{12}$ units. Find $BC$.

**Test 2**

**SHOW YOUR WORK** **Name:** _____

1. (a) Use braces and digits to designate the set of natural numbers.

   (b) Use braces and digits to designate the set of whole numbers.

   (c) Use braces and digits to designate the set of integers.

2. (a) What is the result of a subtraction called?

   (b) What is the result of a multiplication called?

3. What is the sum of any real number and its opposite?

4. Use two unit multipliers to convert 35 centimeters to feet.

5. Use two unit multipliers to convert 250 yards to inches.

6. The width of a rectangle is 5 meters. The length of the rectangle is 10 meters. What is the perimeter of the rectangle?

7. The radius of a circle is 7 inches.

   (a) What is the circumference of the circle?

   (b) What is the area of the circle?

Use the concept of opposites and algebraic addition to simplify the following. Use additional plus signs and brackets as required.

8. $-(-4) + (-3) - (-2)$

9. $7 - 6 - (-3) - [-(-3)]$

10. $-|-4| + |-6| - (-5)$

11. $7 - 5 - (-3) + |4 - 12 + 5|$

Add, subtract, multiply, or divide as indicated. Write the answers as proper fractions reduced to lowest terms or as mixed numbers.

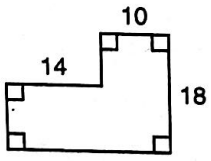
12. $9\frac{3}{5} + 5\frac{3}{10} - 7\frac{1}{2}$

13. $6\frac{1}{2} \times 3\frac{1}{3} \times 1\frac{1}{13}$

14. $\dfrac{5\frac{5}{8}}{3\frac{3}{4}}$

Find the perimeter of each figure. Dimensions are in inches.

15.

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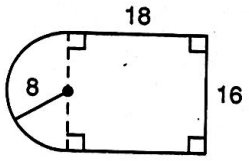
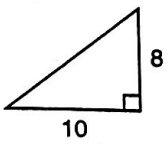



Find the area of each figure. Dimensions are in feet.

17.

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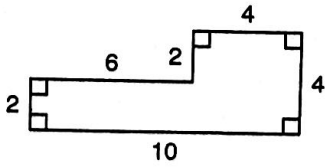
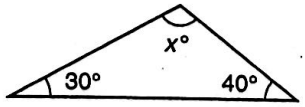
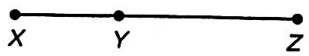



19. Find $x$.




20. The length of $\overline{XZ}$ is $5\frac{1}{3}$ meters. The length of $\overline{YZ}$ is $3\frac{3}{8}$ meters. Find $XY$.



**SHOW YOUR WORK** Name: _____

1. (a) What is the reciprocal of $\frac{1}{7}$?

   (b) What is the reciprocal of $-7$?

   (c) What is the product of any nonzero real number and its reciprocal?

2. Which real number does not have a reciprocal and why?

3. (a) Define *acute angle*.

   (b) Define *equilateral triangle*.

4. (a) Is the product of two signed numbers that have the same sign a positive number or a negative number?

   (b) Is the quotient of two signed numbers that have opposite signs a positive number or a negative number?

5. Use two unit multipliers to convert 70 meters to inches.

6. Use two unit multipliers to convert 50 square centimeters to square meters.

7. The area of a rectangle is 42 square meters. The width of the rectangle is 6 meters. What is the length of the rectangle?

8. The diameter of a circle is 16 inches.

   (a) What is the circumference of the circle?

   (b) What is the area of the circle?

Simplify:

9. $(2)(-3)(-4)(-2)$

10. $(6)(-3) - (2 - 5)(4 - 1) + |-4 + 3 - 1|$

11. $-|-7 + 2| + 3 - 9$

12. $-3(5 + 2) - 2(4 - 2)$

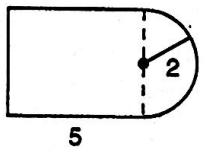
13. $2 - \dfrac{(+24)}{(-6)} - 7$

14. $\dfrac{-2 - 8}{-3 + 9 - 6}$

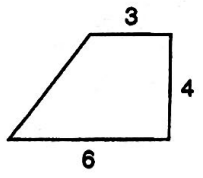
15. $\dfrac{3(-5 + 3) + (6 - 5)}{-6 - (-2)(-3)}$

16. $\dfrac{5 - 2 + 3(-2)}{(-2)(-3) - (5)(-2)}$

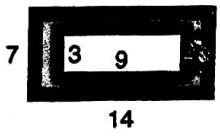
17. Find the perimeter of this figure. Corners that look square are square. Dimensions are in meters.




18. Find the area of this figure. Corners that look square are square. Dimensions are in inches.




19. Find the area of the shaded portion of this figure. All angles are right angles. Dimensions are in feet.




20. Find $x$.