Test Forms

Algebra 1

An Incremental Development

THIRD EDITION

SAXON

Algebra 1

Testing Schedule

Test to be administered:	Covers material up through:	Give after teaching:
Test 1	Lesson 4	Lesson 8
Test 2	Lesson 8	Lesson 12
Test 3	Lesson 12	Lesson 16
Test 4	Lesson 16	Lesson 20
Test 5	Lesson 20	Lesson 24
Test 6	Lesson 24	Lesson 28
Test 7	Lesson 28	Lesson 32
Test 8	Lesson 32	Lesson 36
Test 9	Lesson 36	Lesson 40
Test 10	Lesson 40	Lesson 44
Test 11	Lesson 44	Lesson 48
Test 12	Lesson 48	Lesson 52
Test 13	Lesson 52	Lesson 56
Test 14	Lesson 56	Lesson 60
Test 15	Lesson 60	Lesson 64
Test 16	Lesson 64	Lesson 68
Test 17	Lesson 68	Lesson 72
Test 18	Lesson 72	Lesson 76
Test 19	Lesson 76	Lesson 80
Test 20	Lesson 80	Lesson 84
Test 21	Lesson 84	Lesson 88
Test 22	Lesson 88	Lesson 92
Test 23	Lesson 92	Lesson 96
Test 24	Lesson 96	Lesson 100
Test 25	Lesson 100	Lesson 104
Test 26	Lesson 104	Lesson 108
Test 27	Lesson 108	Lesson 112
Test 28	Lesson 112	Lesson 116
Test 29	Lesson 116	Lesson 120
Test 30	Lesson 120	Lesson 120

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.

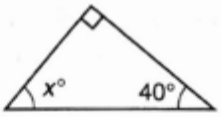
7. The diameter of a circle is 12 inches. Find the circumference of the circle.

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?

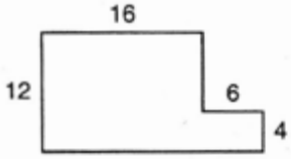
10. The perimeter of a square is 24 meters. What is the length of one side of the square?

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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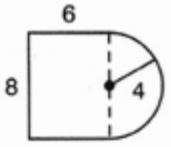


Add, subtract, multiply, or divide as indicated. Write the answers as proper fractions reduced to lowest terms or as mixed numbers.

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

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

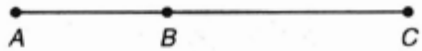
16. $3\frac{1}{2} \div 5\frac{3}{5}$

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.

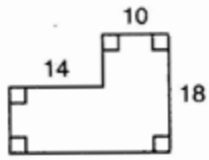
12. $9\frac{3}{5} + 5\frac{3}{10} - 7\frac{1}{2}$

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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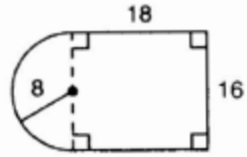
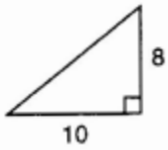


Find the area of each figure. Dimensions are in feet.

17.



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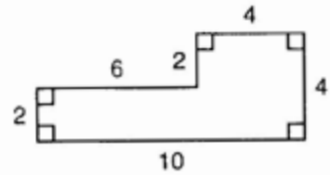


19. Find x.

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.

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

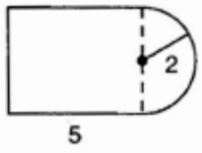
13. $2 - \dfrac{(+24)}{(-6)} - 7$

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

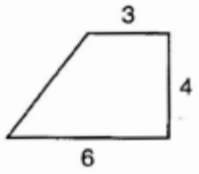
15. $\dfrac{3(-5 + 3) + (6 - 5)}{-6 - (-2)(-3)}$

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

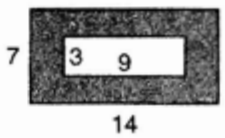
17. Find the perimeter of this figure. Corners that look square are square. Dimensions are in meters.



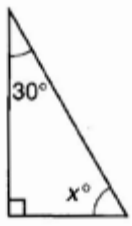
18. Find the area of this figure. Corners that look square are square. Dimensions are in inches.



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



20. Find x.



1. Is the product of 8 positive numbers and 3 negative numbers a positive number or a negative number?

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

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

3. Use two unit multipliers to convert 145 centimeters to kilometers.

4. Use two unit multipliers to convert 75 square inches to square feet.

5. The diameter of a circle is 14 meters. Find the area of the circle.

6. The area of a rectangle is 72 square inches. The length of the rectangle is 8 inches. What is the width of the rectangle?

7. (a) What is the multiplicative inverse of -3?

   (b) What is the multiplicative inverse of $\frac{1}{3}$?

Evaluate:

8. $ab - 3a$ if $a = -4$ and $b = -2$

9. $-x(a + b)$ if $x = -2$, $a = 4$, and $b = -5$

10. $-(y - z)(z + y)$ if $y = -4$ and $z = -2$

11. $-k[(a - x) - (x + a)]$ if $a = -1$, $k = -2$, and $x = -4$

12. $-m[(a - b) - (a - b)]$ if $a = -3$, $b = 2$, and $m = -2$

Simplify:

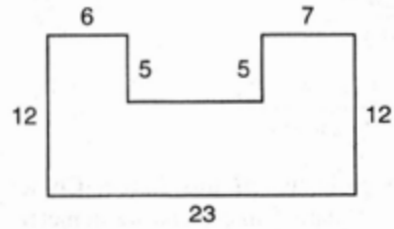
13. $-3(-1 - 3)(6 - 8) + 3$

14. $-|-(-4)| - \{-[-(-4)]\}$

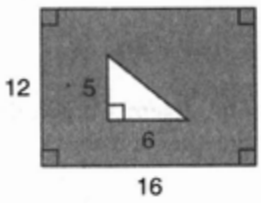
15. $\dfrac{-8 - (-4)(2)}{-3 + 5 + (-2)}$

16. $\dfrac{(-5 - 4) + (-5 - 4)}{-5 - (-4)}$

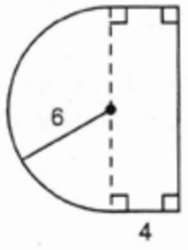
17. Find the perimeter of this figure. All angles are right angles. Dimensions are in yards.



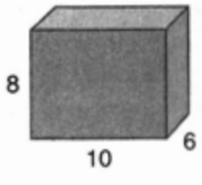
18. Find the area of the shaded portion of this figure. Dimensions are in centimeters.



19. Find the area of this figure. Dimensions are in feet.



20. Find the surface area of this right rectangular prism. Dimensions are in meters.



Test 5 **SHOW YOUR WORK** **Name:** _____

1. Which of the following terms are like terms?

   (a) $-3xyz$ (b) $5xyp$ (c) $-7yxp$ (d) $4pxz$

2. Is the product of 6 negative numbers and 5 positive numbers a positive number or a negative number?

3. Use two unit multipliers to convert 3000 inches to meters.

4. Use two unit multipliers to convert 4000 square inches to square feet.

5. The length of the base of an isosceles triangle is 8 yards. The height of the triangle is 11 yards. Find the area of the triangle.

6. The diameter of a circle is 12 meters. Find the area of the circle.

7. Use the letters a, b, and c, and parentheses to write the distributive property.

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

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

Simplify:

9. $-4^2 + (-4)^2$

10. $(-5)^2 + \sqrt[3]{8}$

Evaluate:

11. def^3 if $d = 2$, $e = -3$, and $f = -1$

12. $c^2 - d^2$ if $c = -3$ and $d = -4$

13. $-x(-u - v) - uv$ if $x = -1$, $u = 3$, and $v = -2$

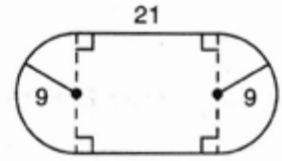
Simplify by adding like terms:

14. $2z + 3yz - 6z + 2yz + y - z - 4y$

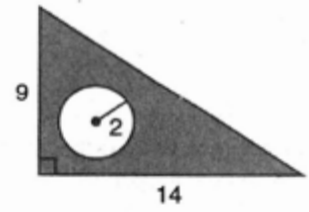
15. $-4ab + 3ax + ba - 6xa$

16. Expand by using the distributive property: $-c(3b - 7a)$

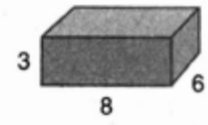
17. Find the perimeter of this figure. Dimensions are in yards.



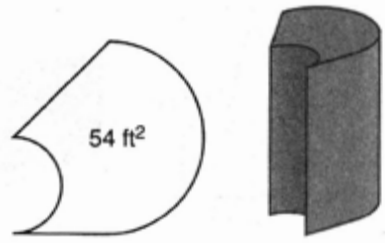
18. Find the area of the shaded portion of this figure. Dimensions are in meters.



19. Find the surface area of this right rectangular prism. Dimensions are in centimeters.



20. A base of a right solid has an area of 54 ft^2. The height of the right solid is 17 ft. Find the volume of the right solid.



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