

Geometry Readiness Test 2

Geometry Skills Readiness Pre-Course Test

EVALUATE POWERS

Find the value of the expression.

1. $7^2 + 3^2$

2. $8^2 + 6^2$

ROUNDING AND ESTIMATION

Round the decimal to the indicated place value.

3. 9.53; tenth

4. 3.076; hundredth

SIMPLIFY FRACTIONS

Write the fraction in simplest form.

5. $\frac{24}{40}$

6. $\frac{6}{33}$

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Answers

1. 58

2. 100

3. 9.5

4. 3.08

5. $\frac{3}{5}$

6. $\frac{2}{11}$

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RATIOS

Use the table to write each ratio in simplest form.

Rental Cars	
Gray	15
White	9
Blue	6

- gray cars to white cars
- blue cars to total cars

MEASURE WITH CUSTOMARY AND METRIC UNITS

Measure the segment to the nearest eighth of an inch and to the nearest half of a centimeter.

- _____
- _____

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Answers

7. 5 to 3, $5 : 3$, or $\frac{5}{3}$

8. 1 to 5, $1 : 5$, or $\frac{1}{5}$

9. $1\frac{5}{8}$ in.; 4.0 cm

10. 1 in.; 3.0 cm

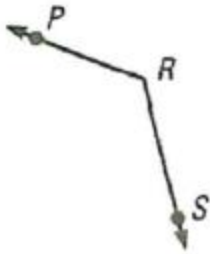
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NAME AND CLASSIFY ANGLES

Name and classify the angle.

11.



12.



MEASURE ANGLES

Use a protractor to measure the angle.

13.



14.



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Answers

11. $\angle PRS$; obtuse

12. $\angle FGH$; straight

13. 40°

14. 135°

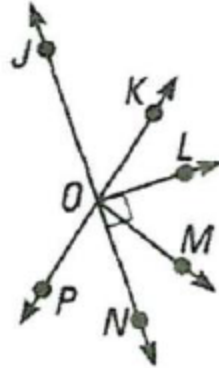
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ANGLE RELATIONSHIPS

Use the diagram to give an example of the angle pair.

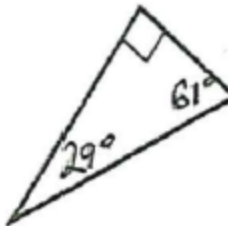
- 15. complementary angles
- 16. adjacent angles



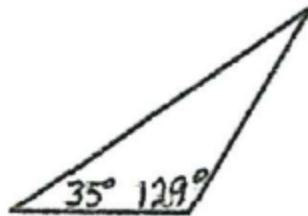
CLASSIFY TRIANGLES

Tell whether the triangle is *acute*, *right*, or *obtuse*.

17.



18.



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Answers

15. *Sample answer:* $\angle JOK$ and $\angle KOL$
16. *Sample answer:* $\angle KOM$ and $\angle MON$
17. right
18. obtuse

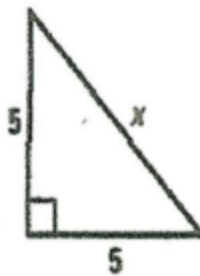
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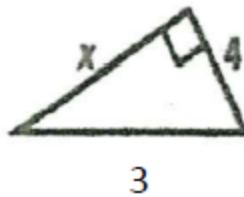
PYTHAGOREAN THEOREM

Find x in the right triangle. If the length is not a whole number, give the answer in simplest radical form.

19.



20.



FIND PERIMETER

Find the perimeter of the figure.

21. equilateral pentagon with side length 7 in.
22. square with side length 2 ft
23. rectangle with length 8 cm and width 6 cm

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Answers

19. $5\sqrt{2}$

20. $4\sqrt{3}$

21. 35 in.

22. 8 ft

23. 28 cm

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AREA OF POLYGONS

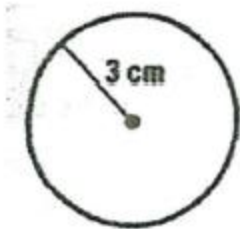
Find the area of the figure.

24. square with side length 9 in.
25. rectangle with length 3.5 cm and width 3 cm
26. triangle with base 10 ft and height 3 ft

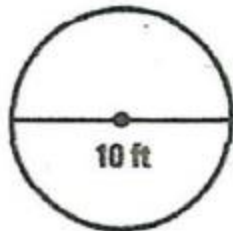
CIRCUMFERENCE AND AREA OF CIRCLES

Find the circumference and area of the circle.
Give your answers in terms of π .

27.



28.



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Answers

24. 81 in.^2

25. 10.5 cm^2

26. 15 ft^2

27. $6\pi \text{ cm}; 9\pi \text{ cm}^2$

28. $10\pi \text{ ft}, 25\pi \text{ ft}^2$

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SIMPLIFY RADICAL EXPRESSIONS

Simplify the expression.

29. $\sqrt{64} \cdot \sqrt{81}$ 30. $\sqrt{\frac{36}{100}}$

EVALUATE EXPRESSIONS

Evaluate the expression for the given value of the variable.

31. $4t + 7$ for $t = 7$

32. $5w - 7$ for $w = -4$

33. $\frac{g}{3} + (-2)$ for $g = 9$

34. $(h + 9)(h - 9)$ for $h = 11$

SOLVE MULTI-STEP EQUATIONS

Solve.

35. $7p + 5 = 47$ 36. $2q - 7 = 31$

37. $\frac{e}{5} - 6 = -9$ 38. $\frac{d}{3} + 4 = 1$

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Answers

29. 72

30. $\frac{3}{5}$

31. 35

32. -27

33. 1

34. 40

35. $p = 6$

36. $q = 19$

37. $e = -15$

38. $d = -9$

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GRAPH LINEAR FUNCTIONS

Graph the function.

39. $y = x + 3$

40. $y = 2x - 3$

41. $y = \frac{1}{2}x$

42. $y = -3$

SOLVE PROPORTIONS

Solve the proportion.

43. $\frac{4}{5} = \frac{h}{35}$

44. $\frac{7}{m} = \frac{21}{30}$

45. $\frac{n}{2} = \frac{5}{4}$

46. $\frac{2}{7} = \frac{5}{p}$

ORDERED PAIRS

Graph the point.

47. $A(2, 2)$

48. $B(-3, 3)$

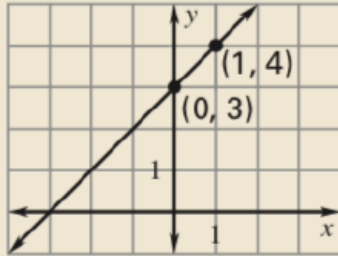
49. $C(-3, -3)$

50. $D(3, -3)$

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Answers

39.



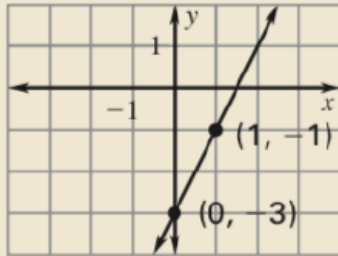
43. $h = 28$

44. $m = 10$

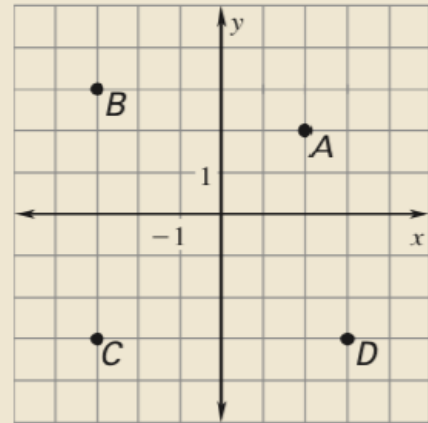
45. $n = 2.5$

46. $p = 17.5$

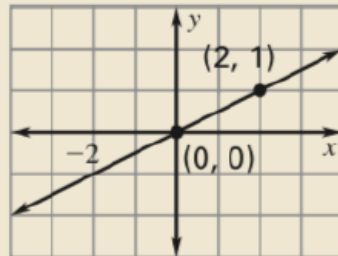
40.



47–50.



41.



42.

