



Name Answer Key Date _____

8th Grade Tier 3 Screener - Winter

Questions 1-3: Evaluate the expression.

1.

$$4 \times (3 + 5)$$

Answer: 32

2.

$$10 - (5 - 2)$$

Answer: 7

3.

$$(8 - 2) \times (5 + 3)$$

Answer: 48



Please stop, put your pencil down and wait for the next directions.

8th Grade Tier 3 Screener - Winter

(continued)

Questions 4-6: Multiply the multi-digit numbers.

4.

$$\begin{array}{r} 2416 \\ \times \quad 3 \\ \hline \end{array}$$

7428

Answer: _____

5.

$$\begin{array}{r} 48 \\ \times 14 \\ \hline \end{array}$$

672

Answer: _____

6.

$$\begin{array}{r} 638 \\ \times 14 \\ \hline \end{array}$$

8932

Answer: _____



Please stop, put your pencil down
and wait for the next directions.



8th Grade Tier 3 Screener - Winter

(continued)

Questions 7-9: Divide the multi-digit numbers.

7.

$$4 \overline{) 2,372}$$

593

Answer: _____

8.

$$5 \overline{) 7,045}$$

1409

Answer: _____

9.

$$12 \overline{) 1,944}$$

162

Answer: _____



Please stop, put your pencil down
and wait for the next directions.

8th Grade Tier 3 Screener - Winter

(continued)

Questions 10-12: Add and subtract the mixed numbers.

10.

$$\begin{array}{r} 4 \frac{1}{3} \\ + 2 \frac{3}{4} \\ \hline \end{array}$$

$$7 \frac{1}{12}$$

Answer: _____

11.

$$\begin{array}{r} 6 \\ - 2 \frac{3}{4} \\ \hline \end{array}$$

$$3 \frac{1}{4}$$

Answer: _____

12.

$$\begin{array}{r} 5 \frac{1}{2} \\ - 1 \frac{2}{3} \\ \hline \end{array}$$

$$3 \frac{5}{6}$$

Answer: _____



Please stop, put your pencil down and wait for the next directions.



8th Grade Tier 3 Screener - Winter

(continued)

Questions 13-15: Multiply the fractions.

13.

$$\frac{1}{4} \times \frac{3}{5}$$

$$\frac{3}{20}$$

Answer: _____

14.

$$\frac{5}{6} \times \frac{1}{7}$$

$$\frac{5}{42}$$

Answer: _____

15.

$$\frac{2}{3} \times \frac{5}{8}$$

$$\frac{5}{12}$$

Answer: _____



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8th Grade Tier 3 Screener - Winter

(continued)

Questions 16-18: Divide the fractions by whole numbers.

16.

$$\frac{1}{8} \div 2$$

Answer: $\frac{1}{16}$

17.

$$\frac{1}{3} \div 6$$

Answer: $\frac{1}{18}$

18.

$$\frac{1}{7} \div 2$$

Answer: $\frac{5}{14}$



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8th Grade Tier 3 Screener - Winter

(continued)

Questions 19-21: Write the answer to each division problem.

19.

$$10 \div \frac{1}{2}$$

Answer: 20

20.

$$6 \div \frac{1}{3}$$

Answer: 18

21.

$$4 \div \frac{1}{5}$$

Answer: 20



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8th Grade Tier 3 Screener - Winter

(continued)

Questions 22-24: Multiply and divide fractions.

22.

$$\frac{2}{5} \times \frac{3}{4}$$

Answer: $\frac{3}{10}$

23.

$$\frac{2}{3} \div \frac{4}{5}$$

Answer: $\frac{5}{6}$

24.

$$\frac{5}{6} \div \frac{1}{3}$$

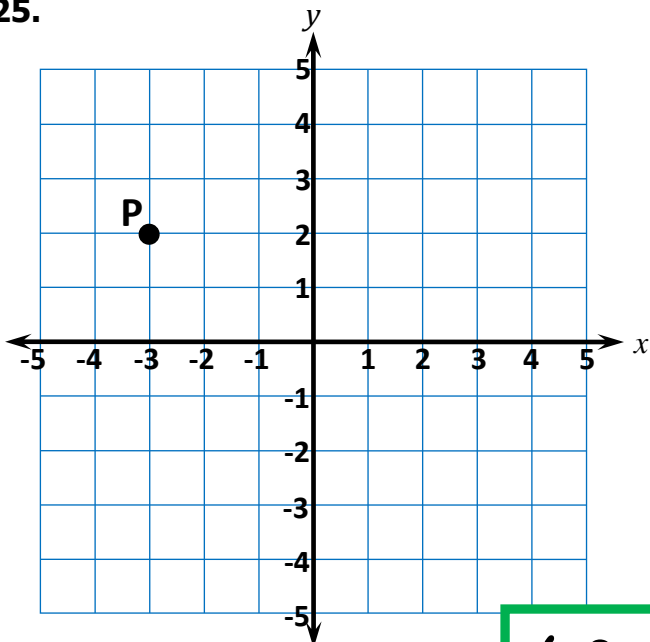
Answer: $\frac{5}{2}$



Please stop, put your pencil down and wait for the next directions.

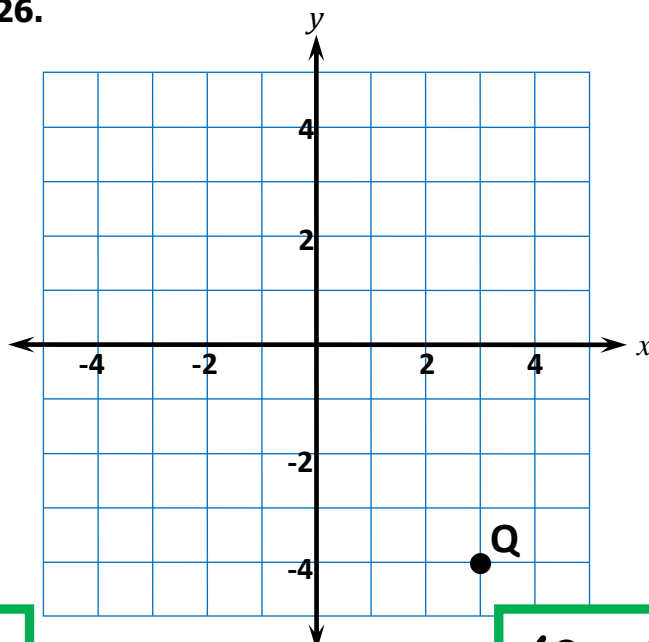
Questions 25-27: Write the ordered pair for the point.

25.



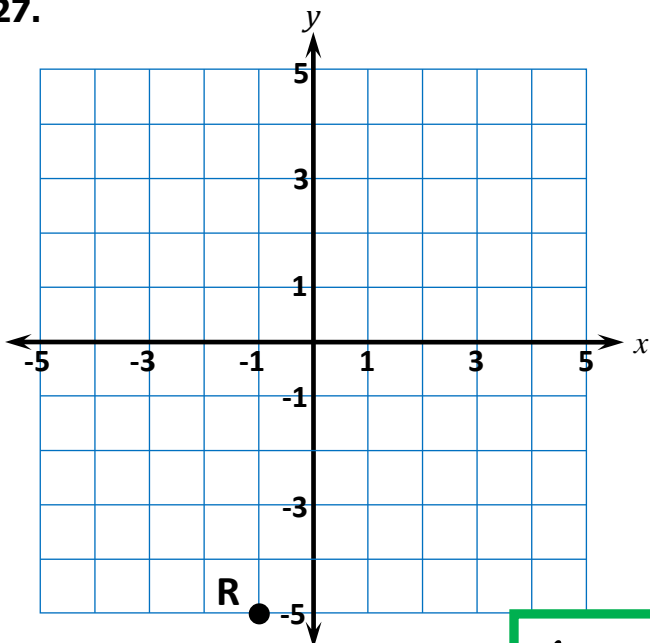
P = **$(-3, 2)$**

26.



Q = **$(3, -4)$**

27.



R = **$(-1, -5)$**



Please stop, put your pencil down and wait for the next directions.



8th Grade Tier 3 Screener - Winter

(continued)

Questions 28-30: Find the equivalent expression.

28.

The product of x and 6, decreased by 2

$6x - 2$

$6(x - 2)$

$2x - 6$

$x + 6 - 2$

29.

3 more than 5 times x

$3x + 5$

$5x + 3$

$5(x + 3)$

$3(5 + x)$

30.

4 times the quantity of x minus 6

$6x - 4$

$6(x - 4)$

$4x - 6$

$4(x - 6)$



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8th Grade Tier 3 Screener - Winter

(continued)

Questions 31-33: Evaluate the expression for the given value of x .

31. Evaluate $5x + 2$ for $x = 3$.

Answer: 17

32. Evaluate $x^2 + 6$ for $x = 4$.

Answer: 22

33. Evaluate $13 - 2x$ for $x = 3$.

Answer: 7



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8th Grade Tier 3 Screener - Winter

(continued)

Questions 34-36: Find the equivalent expression.

34.

$$x + x + x + x$$

$4x^4$

$x + 4$

x^4

$4x$

35.

$$4x + 3 + 2x$$

$6x + 3$

$9x$

$9x^2$

$4x + 5$

36.

$$3(x + 4)$$

$3x + 4$

$3x + 12$

$x^3 + 7$

$x + 12$



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8th Grade Tier 3 Screener - Winter

(continued)

Questions 37-39: Solve the equation.

37.

$$x + 5 = 10$$

$$x = \underline{5}$$

38.

$$24 = 4x$$

$$x = \underline{6}$$

39.

$$\frac{1}{4}x = 8$$

$$x = \underline{32}$$



Please stop, put your pencil down and wait for the next directions.