

Important Concepts . . .

Preview Review



Mathematics Grade 9

W2 - Quiz

Important Concepts of Grade 9 Mathematics

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Materials Required

Paper
Pencil
Calculator

No Textbook Required

This is a stand-alone course.

Mathematics Grade 9

Version 6

Preview/Review W2 - Quiz

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Preview/Review Concepts for Grade Nine Mathematics



W2 – Quiz

QUIZ

This quiz should take between 25 and 40 minutes.

A pencil, eraser, and a scrap piece of paper (for rough work) are the only materials allowed for the quiz.

Teacher may choose to weight each question differently.

Print your name neatly on the quiz.

Complete all questions on the quiz.

Hand in the quiz when you complete it.

Week 2 - Quiz

Part 1: Multiple-Choice

Be sure to read each question carefully. Write the letter of the **best** answer in the blank in front of each question. Each multiple choice is worth 1 mark.

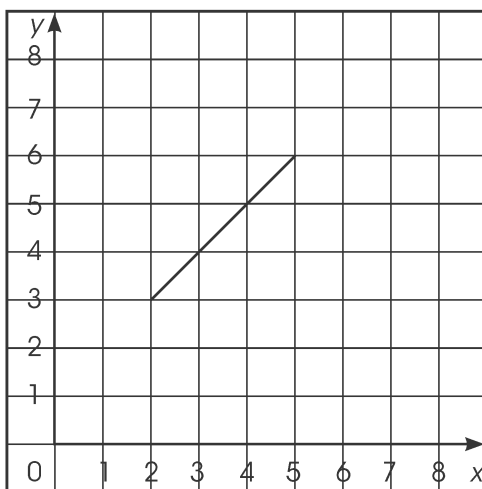
- _____ 1. Which of the following is the equation that matches the given table of values?

- A. $4x + 1$
 B. $5x - 1$
 C. $3x + 2$
 D. $2x + 3$

1	5
2	9
3	13
4	17

- _____ 2. Which of the following equations matches the graph below?

- A. $y = x + 4$
 B. $y = x + 3$
 C. $y = x + 2$
 D. $y = x + 1$



- _____ 3. Which expression represents the table of values?

x	-1	0	2	-5	1
y	-2	8	28	-42	18

- A. $y = 12x$
 B. $y = 8x + 4$
 C. $y = 10x + 8$
 D. $y = 18x$

_____ 4. Solve for x in the following equation.

$$\frac{x}{6} = 3$$

- A. 2
- B. 18
- C. 9
- D. 12

_____ 5. Solve for y in the following equation.

$$-\frac{5.2}{y} = -3.25$$

- A. $y = 1.6$
- B. $y = 0.625$
- C. $y = -1.6$
- D. $y = -0.625$

_____ 6. Solve for d in the following equation.

$$\frac{4}{d} = -\frac{1}{8}$$

- A. 2
- B. -2
- C. 32
- D. -32

_____ 7. Solve for a in the following equation.

$$-\frac{1}{3} - \frac{3a}{2} = \frac{1}{6}$$

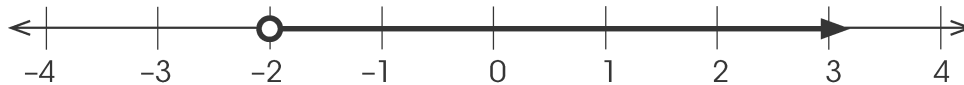
A. $a = -\frac{1}{9}$

B. $a = \frac{3}{1}$

C. $a = \frac{1}{9}$

D. $a = -\frac{1}{3}$

_____ 8. What is the inequality for the following graph?



A. $x < -2$

B. $x \leq -2$

C. $x > -2$

D. $x \geq -2$

_____ 9. Which solution does **not** satisfy the inequality $x \geq 8$.

A. $\frac{16}{2}$

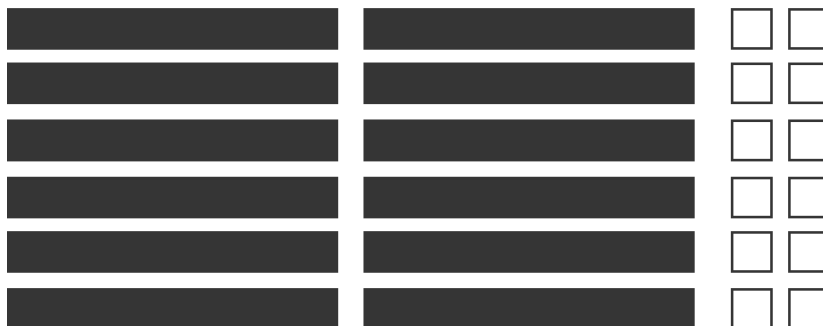
B. 0

C. 8

D. 55.75

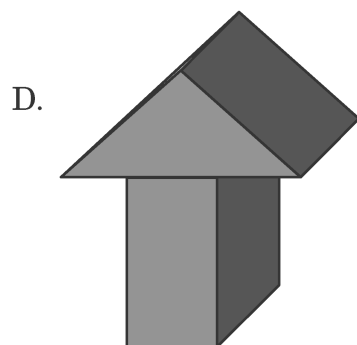
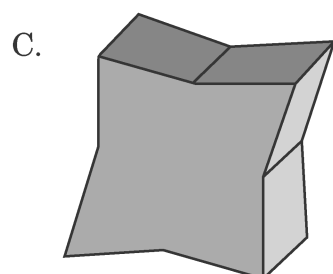
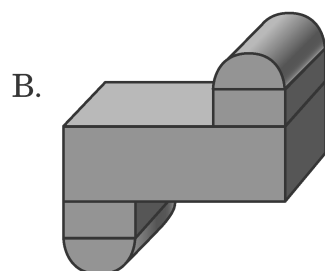
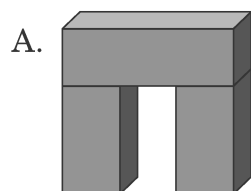
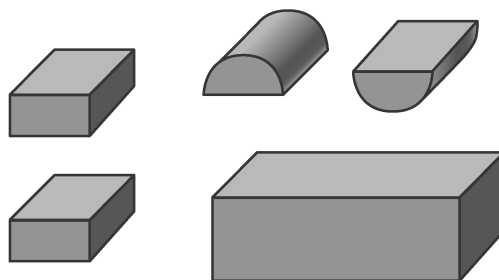
- _____ 10. A concert is being held at the local arena. Ticket prices (t) are based on a seating chart. The cheapest seats are \$14.50 while the most expensive seats are \$45.00. Each inequality below, **except one**, represents the above information. Which inequality does **NOT** represent the cost of a concert tickets?
- A. $t \leq \$45.00$
 - B. $t \geq \$14.50$
 - C. $t > \$14.49$
 - D. $t < \$14.50$
- _____ 11. Which expression is a trinomial?
- A. abc^3
 - B. $-1 + v - t^2$
 - C. $pq + r^2$
 - D. $3xy$
- _____ 12. What is the product of $3y$ and $3.5y$?
- A. $10.5y$
 - B. $10.5y^2$
 - C. $6.5y^2$
 - D. $6.5y$
- _____ 13. What is the product of $\left(\frac{2}{3}\right)(-3a - 6)$.
- A. $2a - 4$
 - B. $-2a - 4$
 - C. $-2a - 4a$
 - D. $2a^2 - 4a$

_____ 14. Which of the following quotients is represented in the tiles below?



- A. $\frac{12x - 12}{2}$
- B. $\frac{-12x + 12}{2}$
- C. $\frac{-12x - 12}{2}$
- D. $\frac{12x + 12}{2}$

_____ 15. The following objects make up which composite shape?



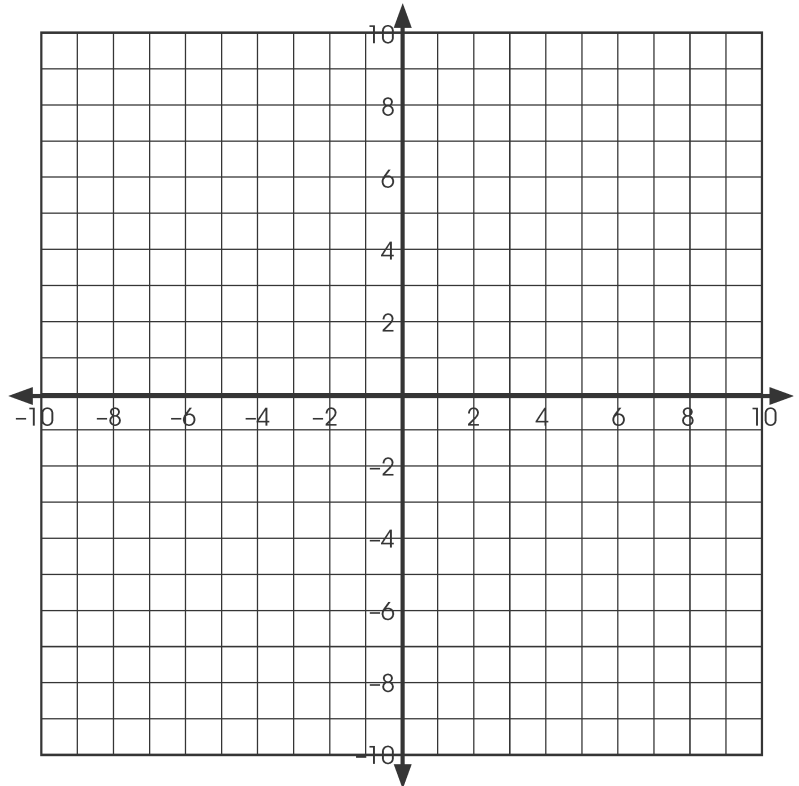
Part 2: Short Answer

Show all your work. Simplify the answer to lowest terms when necessary.

1. Create a table of values and graph for the following equation.

$$y = -2x + 6$$

x	y



2. Solve each of the following. Verify your answer for a.

a. $a + 12 = 2a - 5$

Verification

b. $2.8(3d - 2) = -12.32$

c. $\frac{1}{3}p + \frac{3}{9} = \frac{11}{18}p$

3. Solve the following inequalities.

a. $2x - 3 < -3x + 22$

b. $16x + 10 > -14x - 5$

4. When a number is tripled and then increased by 4, the result is greater than or equal to 31.

a. Represent the inequality.

b. Solve the inequality.

c. Represent the inequality on a number line.



5. Solve the following.

a. $(2x^2 - 8x + 6) + (9x^2 + 4x - 1)$

b. $(4 - 6v) - (3 - 8v)$

6. Find the product.

a. $(-2x)(-2x + 1)$

b. $(-3.2x)(-2.7y)$

c. Use algebra tiles to model your answer for 6a.

7. Find the quotient.

a. $\frac{12n^2 - 2n}{2n}$

b. $\frac{2x^2 + 3x}{-3}$

c. Use algebra tiles to model your answer for 7a.

8. Determine the surface area of the following composite shape.

