

Integers and Pre-Algebra Unit Quiz

1. Solve. Show your work.

a) $(-7) + (+8)$

d) $(-23) - (+45)$

b) $(+35) + (-47)$

e) $(+34) \times (-25)$

c) $(+9) - (-5)$

f) $(-256) \div (+16)$

2. Consider the following number pattern: 96, 92, 88, 85...

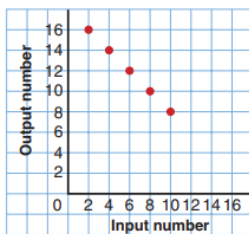
a) Write the next five terms. _____

b) Describe the pattern. _____

c) Determine the 20th term. _____

3.

Look at this graph.



- Make an Input/Output table for the graph.
- What patterns do you see in the table?
- Extend the table 3 more rows. Explain how you did this.
- What happens if you try to extend the table further?

4.

Write an algebraic expression for each statement.

- 31 less than a number.
- A number multiplied by 5.
- Half of a number reduced by 12.
- A number multiplied by itself and increased by 51.

5. One Nintendo Switch game costs \$79.

a) What is the cost of 2 Nintendo Switch games? _____

b) Write an algebraic expression to represent the cost of any number of Nintendo Switch games.

c) Write an algebraic expression for the number of Nintendo Switch games you could buy with **d** dollars.

7. Let z represent 7. Solve.

a) $z - 23 =$

c) $5z - 12 =$

b) $2z + 8 =$

d) $\frac{1}{2}z + 3 =$

8. Solve for y (*isolate the variable*).

a) $y + 24 = 35$

c) $12y + 4 = 64$

b) $9y = 99$

e) $8y - 7 = 191$

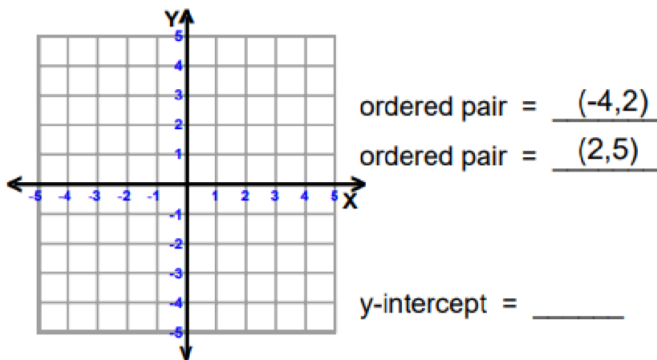
9. Simplify each expression by combining like terms.

a) $8r + 24 - 4r + 7$

b) $14n - 7 + 5n + 3n^2 + 8 - n$

10.

Use the ordered pair to sketch each line and identify the y-intercept.



11.

Find two coordinate pairs and sketch the line.

