## Integers Worksheet

Name:

Class:

Date:

Score:

## **Integer Multiplication**

1. Calculate the product of the following:

(a) 
$$4 \times (-2) =$$

(b) 
$$(-7) \times (-5) =$$

(c) 
$$(-10) \times 3 \times (-2) =$$

(d) 
$$(-9) \times 0 \times 8 =$$

2. Find the missing number in each equation:

(a) 
$$(-12) \times \underline{\hspace{1cm}} = -84$$

(b) 
$$\times 6 = -36$$

(c) 
$$(-1) \times \underline{\hspace{1cm}} = 99$$

(d) 
$$\times$$
 (-8) = -80

3. Sam and Ria both solved the same problem but got different answers:

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(a) Sam: 
$$(-5) \times (-6) = -30$$

(b) Ria: 
$$(-5) \times (-6) = 30$$

Who is correct? Explain why.

4. Observe the pattern and fill in the missing product:

(a) 
$$(-1) \times 1 = -1$$

(b) 
$$(-1) \times 2 = -2$$

(c) 
$$(-1) \times 3 = -3$$

(d) 
$$(-1) \times 4 =$$
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(e) 
$$(-1) \times 5 =$$
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Write what do you observe?

5. Verify using the distributive property:

(a) 
$$(-9) \times [5 + (-2)] = [(-9) \times 5] + [(-9) \times (-2)]$$

(b) 
$$(-14) \times [(-3) + 4] = [(-14) \times (-3)] + [(-14) \times 4]$$



- 6. Find the Following:
  - (a) For any integer x, what is  $(-1) \times x$  equal to?
  - (b) Find the integer that, when multiplied by (-1), gives:

- 7. A diver descends 5 meters per second in an ocean. If he starts at sea level (0 meters), what is his depth after:
  - (a) 3 seconds?
  - (b) 7 seconds?
  - (c) 10 seconds?

(Use negative numbers to show depth below sea level!)

8. Fill in the missing numbers:

(a) 
$$(-6) \times 3 \times$$
\_\_\_  $\times (-3) \times 9 = -4374$ 

(b) 
$$\underline{\qquad}$$
 x 2 x (-7) x (-3) x 6 = 1260

- 9. A skier starts at the top of a mountain at 2,000 meters and descends at 250 meters per minute.
  - (a) How many meters will they be at after 4 minutes?
  - (b) After how many minutes will they reach sea level (0 meters)?
- 10. A student is climbing stairs. If each step is 2 meters, and they take  $(-3) \times (-3)$ 
  - 5)  $\times$  (2) steps, how high will they reach?



- 11. On Planet X, the temperature is dropping 4°C per hour. If the temperature was 10°C at 12 PM, what will be the temperature at:
  - (a) 3 PM?
  - (b) 6 PM?
  - (c) 12 AM (midnight)?
- 12. Solve each multiplication:
  - (a) Choose a negative number and a positive number, then multiply them.
  - (b) Choose two negative numbers and multiply them.
  - (c) Choose any number and multiply it by zero.
  - (d) Choose a positive number and a negative number, then multiply them.
- 13. Evaluate the Following Expressions and Answer the Questions:

(a) If 
$$(-2) \times (-2) \times (-2) = x$$
, what is x?

(b) If 
$$(-3) \times (-3) \times (-3) \times (-3) = y$$
, what is y?

- (c) What happens when an odd number of negative numbers are multiplied together?
- (d) What happens when an even number of negative numbers are multiplied together?



