



Workout Section

1. Find the value of x in the following equation.

$$4 - x = -1$$

2. Find the value of x in the following equation.

$$\frac{x}{3} = -4$$

3. Find the value of x in the following equation.

$$12x = -108$$

4. Find the value of x in the following equation.

$$x + 11 = -1$$

5. Find the value of x in the following equation.

$$\frac{x}{-7} = -4$$

6. Perform the following multiplication.

$$(-7)(-4)(-3) = ?$$

7. Find the two integers whose product is -72 and whose sum is 1 .

8. Perform the following multiplication.

$$(-8)(4)(2)(-3) = ?$$

9. Perform the following multiplication.

$$(-9)(2) = ?$$

10. Determine the value of the following power.

$$(-2)^4 = ?$$

11. Given the following set of numbers, which ones are from the set of Integers Z^* ?

$$S = \left\{ -8, -2, -\frac{1}{3}, 0, \frac{1}{2}, 2, 8 \right\}$$

12. List the subset of Negative Integers that are greater than -3 and less than zero.

13. Represent the following statement with an Integer.

"A bird's nest in a tree 35 feet above the ground."

14. Arrange the following subset of Integers in increasing order.

$$S = \{10, 5, 0, -2, -4\}$$

15. Represent the following statement with an Integer.

"33 feet under ground in a coal mine."

16. A hang glider was flying at an altitude of 1000 feet. Paul, the pilot, knows how to use the wind currents to make the glider rise or drop at will. If he drops 1100 feet into a canyon and then uses the air currents to rise 300 feet above his lowest point, what height is Paul's hang glider now?

- 17.** Shelby works at the Contemporary Resort at Disney World in Orlando. She gets in the elevator on the 15th floor after watching the fireworks from the Magic Kingdom to be a guide for a scavenger hunt with a group of children. The instructions tell them to go down four floors, up 1 floor, down five floors and finally up 3 floors. If they follow the instructions properly, they will be on the floor where the evening milk and cookies are served. What floor are they serving milk and cookies for the hotel guests?
- 18.** In Cape Town, South Africa the temperature during the winter months can go from being very warm during the day to very cold at night. On June 25, 2013, the daytime high was 23 degrees Celsius. By 11 pm that same day, the temperature had dropped by 31 degrees Celsius. What was the temperature at 11 pm that night?
- 19.** The bank manager called Michel's house to tell him that his checking account was overdrawn (this means that he had spent more money than he had in his bank account). Michel told the bank manager that she must be mistaken. Last week he had \$400 in his bank account. In the last week, he used his bank card to buy two Montreal Canadiens tickets worth \$150 each. He deposited his pay check which was for \$1000. He paid his rent by writing a check for \$800 and also had his car payment automatically taken out of his checking account that was for \$500. Who was right? Justify your answer.
- 20.** Cleopatra was the last Pharaoh of Ancient Egypt. She died in 30 B.C. at the age of 39. In what year was she born?
- 21.** Calculate the value of the chain of operations below.
- $$(6 - 4 \times -3) \times (8 + 3 \times -2) = ?$$
- 22.** Calculate the value of the chain of operations below.
- $$-16 \div -2^2 \times (-4)^2 = ?$$
- 23.** Calculate the value of the chain of operations below.
- $$(-8 + 3 \times 4)^2 - 16 \div -2^2 = ?$$
- 24.** Calculate the value of the chain of operations below.
- $$(-6 + 2) \times -7 + 6 \times -3 = ?$$
- 25.** Calculate the value of the chain of operations below.
- $$-7 + 9 \times -3 \div (4 - 7)^2 = ?$$
- 26.** Calculate the following addition.
- $$18 + (-9) = ?$$
- 27.** Calculate the following subtraction.
- $$11 - (-6) = ?$$
- 28.** Calculate the following addition.
- $$-21 + 7 = ?$$
- 29.** Calculate the following addition.
- $$9 + (-5) + (-4) + 2 = ?$$
- 30.** Perform the following calculation.
- $$-7 - 8 + 2 - (-13) = ?$$