

1) What is the value of  $x - 12$ , if  $x = -3$ ?

2) What is the value of  $8 + 3(-5 + 2)$ ?

3) Place the following in order from least to greatest:  $-3, 5, 0, 6, -5, -1$

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4) Write an inequality that would compare  $-14$  \_\_\_\_\_  $-24$

5) Find the product of 8 and  $-3$ .

6) Find the sum of 8 and  $-3$ .

7) Solve:  $-5 - (-3) + 6 =$

8) Solve:  $(-6)(2)(-2) =$

9) Solve:  $-24 \div -3 =$

10) Solve:  $(4 - 7) + (8 \div -2) =$

11) Compare:  $-6 + -11$  \_\_\_\_\_  $-6 - 11$

12) Solve:  $-8 + (-4) + 15 =$

13) Solve:  $-15 - (-5) =$

Use the order of operations to solve the following:

14)  $-19 + 2(6 - 4)$

15)  $(18 + 7)4 \div (-2)$

16)  $7 + 36 \div 6 - 10$

# Integers

Name \_\_\_\_\_

Fill in the blanks with  $<$ ,  $>$  or  $=$

1)  $1$  \_\_\_\_\_  $-5$

2)  $-1$  \_\_\_\_\_  $-2$

3)  $-4$  \_\_\_\_\_  $3$

4)  $-7$  \_\_\_\_\_  $-3$

Evaluate each expression

5)  $|5|$

6)  $|-6|$

7)  $|6 - 3| - |2 - 4|$

8)  $|-8| - |-2|$

Evaluate each expression if  $x = -10$  and  $y = 6$

9)  $3 + |x|$

10)  $|y| + 12$

11)  $|x| - y$

12)  $|x| + |y|$

Arrange the following in order from least to greatest

13)  $-3, 5, -8, |-6|, 0, -1$  \_\_\_\_\_

14)  $17, -22, 0, -9, 8, -21, -19$  \_\_\_\_\_

15) If  $x = -2$  and  $y = 2$ , then which of the following statements is false?

a)  $|x| > 1$

b)  $|x| = |y|$

c)  $|y| < 1$

d)  $|x| = y$

16) Which expression has the greatest value?

a)  $|-25|$

b)  $|-16|$

c)  $|18|$

d)  $|22|$

Determine whether each statement is always, sometimes or never true.

Explain your reasoning.

17) The absolute value of a positive integer is a negative integer.

18) If  $a$  and  $b$  are integers and  $a > b$  then  $|a| > |b|$ .

19) If  $a$  and  $b$  are integers,  $a - |b| \leq a + b$ .

20) Plot the following integers on a number line.  $-3, 6, -2, 0, 3, -5, 1, -1$

# Homework – Integers

Name \_\_\_\_\_

Write an integer for each. Then write the opposite of the integer

- 1) a diver 50 m below sea level \_\_\_\_\_
- 2) an airplane 600 m above ground \_\_\_\_\_
- 3) a profit of \$121 \_\_\_\_\_
- 4) a basement 10 m below ground \_\_\_\_\_

Find each

5)  $|-8|$       6)  $|18|$       7)  $|0|$       8)  $|-33|$

9)  $|-19| + |13|$       10)  $|12| - |-12|$

Replace \_\_\_ with  $<$  or  $>$

11)  $3$  \_\_\_  $-3$       12)  $-10$  \_\_\_  $0$       13)  $-6$  \_\_\_  $9$

14)  $-16$  \_\_\_  $-15$       15)  $|12|$  \_\_\_  $|-12|$

List the integers from least to greatest

16)  $-9, 15, -19, 0, -30, 50$  \_\_\_\_\_

17)  $-77, 42, -100, 100, 0, -9, 2$  \_\_\_\_\_

18)  $-8, -4, 1, -1, 0, -15, 12, -13$  \_\_\_\_\_

19) An airplane is 3400 ft. above the ground. The plane goes up 100 ft. How far up is the plane now?

20) A coal miner is in a tower 25 ft. above the ground. He goes down 60 ft. on an elevator. Where is he now?

1) Place the following in order from least to greatest: 4, -5, 1, -8, -1, 0, 3  
\_\_\_\_\_

2) Find the quotient of 12 and -3 \_\_\_\_\_

3) Find the sum of 12 and -3 \_\_\_\_\_

4) Find the difference of 12 and -3 \_\_\_\_\_

5) Find the product of 12 and -3 \_\_\_\_\_

Solve the following:

6)  $50 - (-18)$

7)  $-18 + 15$

8)  $-6(-7)$

9)  $-81 \div 9$

10)  $14 - (-16) - 19$

11)  $-28 + 35 - (-36)$

12)  $8(-6)(-3)$

Compare the following

13)  $-9 + 4$  \_\_\_\_\_  $5 - 6$

14)  $-15 \div (-3)$  \_\_\_\_\_  $12 \div (-4)$

Use the order of operations to solve the following

15)  $48 \div 2 \cdot 3 - 9$

16)  $5 + 42 \div 6 - 4$

17)  $3 + 5(10 - 8)$

22) A team lost a total of 12 yards on 3 plays. What was the average loss per play? (set up the problem using integers)

23) The high temperature on Monday was  $10^{\circ}\text{C}$  and the low was  $-4^{\circ}\text{C}$ . What was the difference in temperatures on Monday? (set up the problems using integers)

24)  $-15 \cdot \underline{\hspace{2cm}} = 75$

25)  $\underline{\hspace{2cm}} - (-3) = -8$

26) Use a number line to add  $-3 + 5$

Solve the following:

27)  $|-3| - |8|$

29)  $|3 - 5| + |-24 \div 3|$

30)  $|-11 + 11| - |4 \div -1|$

Write the following as a number sentence and then solve.

31) eight divided by negative four \_\_\_\_\_

32) the product of five and four, minus twenty-five \_\_\_\_\_

33) five squared, plus negative four cubed \_\_\_\_\_

1) Place the following in order from least to greatest:

4, -5, 1, -8, -1, 0, 3 \_\_\_\_\_

2) Find the quotient of 12 and -3 \_\_\_\_\_

3) Find the sum of 12 and -3 \_\_\_\_\_

4) Find the difference of 12 and -3 \_\_\_\_\_

5) Find the product of 12 and -3 \_\_\_\_\_

Fill in the blanks with  $<$ ,  $>$  or  $=$

6)  $1$  \_\_\_\_\_  $-5$     7)  $-1$  \_\_\_\_\_  $-2$     8)  $-4$  \_\_\_\_\_  $3$     9)  $-7$  \_\_\_\_\_  $-3$

Evaluate each expression

10)  $|5| =$     11)  $|-6| =$     12)  $|6 - 3| - |2 - 4| =$

Evaluate if  $x = -10$  and  $y = 6$

13)  $3 + |x|$

14)  $|y| + 12$

15)  $|x| - |y|$

Solve:

16)  $-5 - (-3)$

17)  $-6(2)(-2)$

18)  $(4 - 7) + (8 \div -2)$

19)  $-24 \div -3$

20)  $-18 + 15$

21)  $(-8) - (-2) + 3$

22)  $(-2)^3$

23)  $-5 + 2(-8 - 2)$