

Simplifying Absolute Value Problems

Evaluate each expression.

$$1) \ |-1 - 2|$$

$$2) \ 9 \div (|3|)$$

$$3) \ |1 - 4| \times -2$$

$$4) \ -\frac{12}{|-1| + 1}$$

$$5) \ |1 - -3| + |5|$$

$$6) \ (|3 - 3| - -4) \times 5$$

Evaluate each using the values given.

$$7) \ b - |a|; \text{ use } a = 5, \text{ and } b = 6$$

$$8) \ |x + y|; \text{ use } x = 3, \text{ and } y = -5$$

$$9) \ q - |r|; \text{ use } q = 3, \text{ and } r = -1$$

$$10) \ |j - h|; \text{ use } h = 5, \text{ and } j = 6$$

Answers

Evaluate each expression.

1) $|-1 - 2|$
3

2) $9 \div (|3|)$
3

3) $|1 - 4| \times -2$
-6

4) $-\frac{12}{|-1| + 1}$
-6

5) $|1 - -3| + |5|$
9

6) $(|3 - 3| - -4) \times 5$
20

Evaluate each using the values given.

7) $b - |a|$; use $a = 5$, and $b = 6$
1

8) $|x + y|$; use $x = 3$, and $y = -5$
2

9) $q - |r|$; use $q = 3$, and $r = -1$
2

10) $|j - h|$; use $h = 5$, and $j = 6$
1

$$11) \ x - (|z| + x); \text{ use } x = 6, \text{ and } z = 3$$

$$12) \ 6|x + y|; \text{ use } x = 1, \text{ and } y = 1$$

$$13) \ (|p + q|) \div 5; \text{ use } p = -2, \text{ and } q = -3$$

$$14) \ j(h - |h|); \text{ use } h = -1, \text{ and } j = 5$$

$$15) \ |2| + h + |j|; \text{ use } h = 6, \text{ and } j = -4$$

$$16) \ |x - y| + y - 1; \text{ use } x = -3, \text{ and } y = -6$$

$$17) \ 3 - (p + |m - m|); \text{ use } m = 4, \text{ and } p = -4$$

$$18) \ n(m + |-1|) - n; \text{ use } m = 1, \text{ and } n = -6$$

$$19) \ |ab| - |b| + b; \text{ use } a = 3, \text{ and } b = 6$$

$$20) \ x - (x + y - |-x|); \text{ use } x = -2, \text{ and } y = 4$$

Answers

11) $x - (|z| + x)$; use $x = 6$, and $z = 3$
-3

12) $6|x + y|$; use $x = 1$, and $y = 1$
12

13) $(|p + q|) \div 5$; use $p = -2$, and $q = -3$
1

14) $j(h - |h|)$; use $h = -1$, and $j = 5$
-10

15) $|2| + h + |j|$; use $h = 6$, and $j = -4$
12

16) $|x - y| + y - 1$; use $x = -3$, and $y = -6$
-4

17) $3 - (p + |m - m|)$; use $m = 4$, and $p = -4$
7

18) $n(m + |-1|) - n$; use $m = 1$, and $n = -6$
-6

19) $|ab| - |b| + b$; use $a = 3$, and $b = 6$
18

20) $x - (x + y - |-x|)$; use $x = -2$, and $y = 4$
-2