

## Substituting into an expression

1. Substitute these values into each expression;  $a = 5$ ,  $b = 2$

- a.  $a + b$
- b.  $a - b$
- c.  $2a + 3b$
- d.  $5a - b$

2. Substitute these values into each expression;  $x = 4$ ,  $y = 7$ ,  $z = 2$

- a.  $x + y + z$
- b.  $2x - y + 3z$
- c.  $4y + 2z - x$
- d.  $x^2 + 7y + 5x$

3. Substitute these values into each expression;  $m = -2$ ,  $n = 4$ ,  $p = 3$ ,  $q = -8$

- a.  $m + n$
- b.  $p + q - 2n$
- c.  $2q - p$
- d.  $3m - 2q$
- e.  $m^2 + 4p + q$

4. Find the value of each expression using the values given.

- a.  $\frac{x}{2} + 4y$                        $x = 10, y = 2$
- b.  $3(p + 2q)$                        $p = 8, q = 3$
- c.  $m + n(q + 3)$                        $m = 4.5, n = 6, q = -1$
- d.  $(u + v)^x$                        $u = 7, v = -4, x = 4$

# Why Should You Look Out for a Pig That Knows Karate?



Simplify or evaluate each expression below, as directed. Find your answer in the corresponding answer column. Write the letter of the exercise in the box that contains the number of the answer.

**SIMPLIFY:**

- (I)  $4 \cdot 9 + 1$
- (T)  $6 + 7 \cdot 10$
- (U)  $42 - 2 \cdot 7$
- (O)  $8 + 50 \div 2$
- (E)  $(10)(3) - 4$
- (G)  $2 \cdot 8 + 3 \cdot 5$
- (A)  $\frac{60}{3} - (2)(4)$
- (T)  $5 \cdot 12 + \frac{32}{16}$
- (Y)  $3 + 2 \cdot 5 \cdot 8$
- (L)  $(4)(6)(3) - 20 + 1$
- (O)  $18 \div 2 \times 3$
- (R)  $3 \cdot 3 + 4 \cdot 4 - 5 \cdot 5$

**Answers:**

- (7) 62
- (22) 27
- (9) 37
- (5) 31
- (17) 33
- (2) 76
- (15) 12
- (18) 0
- (12) 83
- (14) 28
- (1) 53
- (11) 26

**EVALUATE if  $a = 2$ ,  $b = 3$ ,  $x = 5$ ,  $y = 8$ , and  $w = 20$ :**

- (I)  $4x + 7$
- (C)  $1 + 6y$
- (H)  $9 - 2b$
- (O)  $8x + 3y$
- (M)  $a + bw$
- (V)  $aw - by$
- (P)  $b + \frac{w}{x}$
- (G)  $\frac{bw}{x} - a + 7$
- (K)  $abxy - 5w$
- (H)  $36 - 4ab$
- (P)  $5 + 3x - \frac{w}{a}$

**Answers:**

- (10) 16
- (16) 10
- (8) 17
- (20) 49
- (13) 64
- (21) 12
- (4) 27
- (23) 7
- (3) 62
- (19) 140
- (6) 3

OBJECTIVE 1-b: To apply rules for order of operations; evaluate variable expressions.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
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