

# EVALUATING ONE VARIABLE EXPRESSIONS

- 1)  $5+n, n=2$   
 $5+2$   
 $7$
- 2)  $n-2, n=4$   
 $4-2$   
 $2$
- 3)  $8n+1, n=9$   
 $8(9)+1$   
 $72+1$   
 $73$
- 4)  $n-12, n=-1$   
 $-1-12$   
 $-13$
- 5)  $9-n, n=3$   
 $9-3$   
 $6$
- 6)  $n+2, n=5$   
 $5+2$   
 $7$
- 7)  $3n+7, n=6$   
 $3(6)+7$   
 $18+7$   
 $25$
- 8)  $n+(-5), n=-2$   
 $-2-5$
- 9)  $3n+6, n=4$   
 $3(4)+6$   
 $12+6$   
 $18$
- 10)  $4n+6, n=-1$   
 $4(-1)+6$   
 $-4+6$   
 $2$
- 11)  $10+2n-6, n=3$   
 $10+2(3)-6$   
 $10+6-6$   
 $10$
- 12)  $10-3n, n=8$   
 $10-3(8)$   
 $10-24$   
 $-14$
- 13)  $2n-5, n=4$   
 $2(4)-5$   
 $8-5$   
 $3$
- 14)  $5n+6, n=2$   
 $5(2)+6$   
 $10+6$   
 $16$
- 15)  $12n+6, n=2$
- 16)  $10-3n, n=-2$   
 $10-3(-2)$   
 $10+6$   
 $16$
- 17)  $5(6n+2), n=8$   
 $5(6(8)+2)$   
 $5(48+2)$   
 $240+2$   
 $242$
- 18)  $2(-3n-2), n=3$   
 $2(-7(3)-2)$   
 $2(-21-2)$   
 $-42-2$   
 $-44$
- 19)  $9n-3m+12, n=6$   
 $9(6)-3(6)+12$   
 $54-18+2$   
 $38$
- 20)  $(6n+3) \div 5, n=2$   
 $6(2)+3 \div 5$   
 $12+3 \div 5$   
 $15 \div 5 = 3$
- 21)  $(n+16) \div 3, n=8$

**Commented [1]:** recheck #18, 19, 22, 23-28. You may have wrote these problems down incorrectly or made an error in the process. Remember, you must work the problem inside the parentheses before you multiple. [https://simple.wikipedia.org/wiki/Order\\_of\\_operations](https://simple.wikipedia.org/wiki/Order_of_operations)

$$8 + 16 \div 3$$

$$24 \div 3 = 8$$

$$-42 + 7 - 3 - 9$$

$$-47$$

$$\frac{2}{3} - 9 + 2(3)$$

$$-2 - 9 + 6$$

$$22) 4n - 12 + 8n, n=6$$

$$4(6) - 12 + 8(6)$$

$$24 - 12 + 48$$

$$60$$

$$28) (-5)(10n - 20 + 2n), n=2$$

$$-5(10(2) - 20 + 2(2))$$

$$-5(20 - 20 + 4)$$

$$-100 - 20 + 4$$

$$-116$$

$$23) (16 - 12n)(-2), n=3$$

$$16 - 12(-3)(-2)$$

$$16 + 36 - 2$$

$$50$$

$$29) (-3) + \frac{n}{4} + 2n, n=16$$

$$-3 + \frac{16}{4} + 2(16)$$

$$-3 + 4 + 32$$

$$33$$

$$24) 12n^2 + 5n - 3, n=2$$

$$12(2)^2 + 5(2) - 3$$

$$12(4) + 10 - 3$$

$$48 + 10 - 3$$

$$55$$

$$30) (-2) + \frac{n}{2}, n=2$$

$$-2 + \frac{2}{2}$$

$$-2 + 1$$

$$-1$$

$$25) n^2 - 11n, n=4$$

$$(4)^2 - 11(4)$$

$$16 - 44$$

$$-28$$

$$31) \left(-\frac{14}{n}\right) - 9 + 4n, n=2$$

$$-\frac{14}{2} - 9 + 4(2)$$

$$-7 - 9 + 8$$

$$-8$$

$$26) 2n(6 - 4n), n=5$$

$$2(5)(6 - 4(5))$$

$$10(6 - 20)$$

$$60 - 20$$

$$40$$

$$27) 14n + 7 - 3n^2, n=3$$

$$14(-3) + 7 - 3(-3)^2$$

$$32) \left(-\frac{6}{n}\right) - 9 + 2n, n=3$$

## EVALUATING TWO VARIABLES Expressions

1)  $2x + 4y$   
 $x = 3, y = 2$

$$\begin{aligned} 2(3) + 4(2) \\ 6 + 8 \\ 14 \end{aligned}$$

2)  $8x + 5y$   
 $x = 1, y = 5$

$$\begin{aligned} 8(1) + 5(5) \\ 8 + 25 \\ 33 \end{aligned}$$

3)  $-2a + 4b$   
 $a = 6, b = 3$

$$\begin{aligned} -2(6) + 4(3) \\ -12 + 12 \\ 0 \end{aligned}$$

4)  $4x + 7 - 2y$   
 $x = 7, y = 6$

$$\begin{aligned} 4(7) + 7 - 2(6) \\ 28 + 7 - 12 \\ 28 - 5 \\ 23 \end{aligned}$$

5)  $5z + 12 - 4k$   
 $z = 5, k = 2$

$$\begin{aligned} 5(5) + 12 - 4(2) \\ 25 + 12 - 8 \\ 25 - 4 \\ 29 \end{aligned}$$

6)  $2(-x - 2y)$   
 $x = 6, y = 9$

$$\begin{aligned} 2(-6 - 2(9)) \\ -12 - 18 \\ -20 \end{aligned}$$

7)  $18a + 2b$   
 $a = 2, b = 8$

$$\begin{aligned} 18(2) + 2(8) \\ 36 + 16 \\ 52 \end{aligned}$$

8)  $4x + 3y$   
 $x = 3, y = 2$

$$\begin{aligned} 4(3) + 3(2) \\ 12 + 6 \\ 18 \end{aligned}$$

9)  $2x + 15 + 4y$   
 $x = 2, y = 4$

$$\begin{aligned} 2(2) + 15 + 4(4) \\ 4 + 15 + 16 \\ 35 \end{aligned}$$

10)  $4a - (15 - b)$   
 $a = 4, b = 6$

$$\begin{aligned} 4(4) - (15 - 6) \\ 16 - 9 \\ 7 \end{aligned}$$

11)  $5z + 19 + 8k$   
 $z = 5, k = 4$

$$\begin{aligned} 5(5) + 19 + 8(4) \\ 25 + 19 + 32 \\ 76 \end{aligned}$$

12)  $xy + 12 + 5x$   
 $x = 7, y = 2$

$$\begin{aligned} (7)(2) + 12 + 5(7) \\ 14 + 12 + 35 \\ 61 \end{aligned}$$

13)  $2x + 4y - 3 + 2$   
 $x = 5, y = 3$

$$\begin{aligned} 2(5) + 4(3) - 3 + 2 \\ 10 + 12 - 3 + 2 \\ 21 \end{aligned}$$

14)  $\left(-\frac{12}{x}\right) + 1 + 5y$

$$\begin{aligned} x = 6, y = 8 \end{aligned}$$

EVALUATING TWO VARIABLES EXPRESSIONS

$$\frac{2}{(-\frac{12}{6}) + 1 + 5(8)}$$

$$-2 + 1 + 40$$

$$39$$

$$19) 2x + 14 + 4y$$

$$x=6, y=8$$

$$2(6) + 14 + 4(8)$$

$$12 + 14 + 32$$

$$58$$

$$15) (-4)(-2a-2b)$$

$$a=5, b=3$$

$$-4 - 2(5) - 2(3)$$

$$-4 - 10 - 6$$

$$-20$$

$$20) 4a - (5a - b) + 5$$

$$a=4, b=6$$

$$4(4) - 5(4) - 6 + 5$$

$$16 - 20 - 6 + 5$$

$$-5$$

$$16) 10 + 3x + 7 - 2y$$

$$x=7, y=6$$

$$10 + 3(7) + 7 - 2(6)$$

$$10 + 21 + 7 - 12$$

$$26$$

$$17) 9x + 2 - 4y + 5$$

$$x=7, y=5$$

$$9(7) + 2 - 4(5) + 5$$

$$63 + 2 - 20 + 5$$

$$50$$

$$18) 6 + 3(-2x - 3y)$$

$$x=9, y=7$$

$$6 + 3 - 2(9) - 3(7)$$

$$9 - 18 - 21$$

$$-30$$

**Commented [2]:** recheck #6, 8, 9, 15, 18, 20. You may have wrote these problems down incorrectly or made an error in the operation. Remember, you must work the problem inside the parentheses before you multiple.

