

I'm not a robot!

134412036850 5872692.5454545 15468763.702381 212471999.6 17960155.886364 40836297186 66756828052 22141704.677419 116963880090 110156265.63158 142831695.08333 39274934859 37380383.571429 34023821958 43286151043 21124333595 24096424.659091 5123577.805556 768710970 15248007.027778 45386117951 21066465.865979 38351990460 211013074503 76650627016 81812673940 123815814.66667 19309239630 29453794158 26801973450 96578680341 9494381.7361111

## Simplifying Polynomial Expressions

Simplify the following polynomial expressions.

1)  $8x^3 + 9x - 4x^3 + x$   


---

2)  $2y^2 + 3y - 5y^2 + y^3$   


---

3)  $t^4 - 11 - 2t^4$   


---

4)  $u^4 - u^2(3u^2 - 2)$   


---

5)  $-6v^4 - 16 + 10v^4$   


---

6)  $7a^2 + 13 - 8a^2$   


---

7)  $-18 + 9b^2 + 6$   


---

8)  $6p^5 + 7p - 5p^5 - 9p$   


---

Teaching Resources @ [www.tutoringhour.com](http://www.tutoringhour.com)

### Evaluate Expressions

Name: \_\_\_\_\_ Score: \_\_\_\_\_

Evaluate the following expressions for  $x = 4$

$$\begin{array}{lll} x + 16 & = & 2x - 20 = \\ -x + 12 & = & x \cdot 2x = \\ & & x^3 - 20 = \end{array}$$

Evaluate the following expressions for  $h = 3$

$$\begin{array}{lll} 3h + 9 & = & 19 + h^2 = \\ -2h + 14 & = & 2h + 15 = \\ & & h^0 + 12 = \end{array}$$

Evaluate the following expressions for  $y = 10$

$$\begin{array}{lll} 4y - 8 & = & 22 \cdot y^2 = \\ -y + 25 & = & y - 15 = \\ & & y^2 - 12 = \end{array}$$

Evaluate the following expressions for  $t = -5$

$$\begin{array}{lll} 2t + 6 & = & 22 + t^2 = \\ -4t + 18 & = & 2t - 10 = \\ & & t^3 + 75 = \end{array}$$

Evaluate the following expressions for  $v = 0.5$

$$\begin{array}{lll} v^1 + 4 & = & 3v + 6 = \\ v + 17 & = & -2v + 10 = \\ & & v + 5 = \end{array}$$

copyright: [www.mathinenglish.com](http://www.mathinenglish.com)

## 22. [Algebra - Substitution]

## Skill 22.1 Substituting into expressions involving + and -

Substituting into an expression means replacing the letters (pronumerals) with numbers and follow the order of operations.

Q. If $x = 3$ ,	A. $x + 4$	Substitute $x$ with 3.
find the value of:	$= 3 + 4$	Add 3 and 4.
$x + 4$	$= 7$	
Q. If $m = 6$ and $n = 2$ ,	A. $m - n + m + 4$	Substitute $m$ with 6 and $n$ with 2.
find the value of:	$= 6 - 2 + 6 + 4$	Working from left to right, take 2 from 6.
$m - n + m + 4$	$= 4 + 6 + 4$	Add 4 and 6 and 4.
	$= 14$	

- a) If  $t = 7$ ,  
find the value of:  
 $t + 5$   
=  $7 + 5$   
= 12

b) If  $r = 8$ ,  
find the value of:  
 $r + 3$   
=  $8 + 3$   
= 11

c) If  $p = 5$ ,  
find the value of:  
 $p + 4$   
=  $5 + 4$   
= 9

d) If  $a = 6$ ,  
find the value of:  
 $a + a + 4$   
=  $6 + 6 + 4$   
= 16

e) If  $h = 3$ ,  
find the value of:  
 $h + h + h + 9$   
=  $3 + 3 + 3 + 9$   
= 21

f) If  $k = 6$ ,  
find the value of:  
 $k + k + 9 - k$   
=  $6 + 6 + 9 - 6$   
= 21 - 6  
= 15

g) If  $f = 15$  and  $g = 4$ ,  
find the value of:  
 $f - g$   
=  $15 - 4$   
= 11

h) If  $l = 8$  and  $m = 5$ ,  
find the value of:  
 $m + l$   
=  $5 + 8$   
= 13

i) If  $q = 42$  and  $r = 27$ ,  
find the value of:  
 $q - r$   
=  $42 - 27$   
= 15

j) If  $s = 9$  and  $t = 2$ ,  
find the value of:  
 $s - t + s + 4$   
=  $9 - 2 + 9 + 4$   
= 16

k) If  $y = 8$  and  $z = 5$ ,  
find the value of:  
 $12 - y + 7 - z$   
=  $12 - 8 + 7 - 5$   
= 10

l) If  $a = 6$  and  $b = 3$ ,  
find the value of:  
 $9 + a + a - b$   
=  $9 + 6 + 6 - 3$   
= 18

#### **Have you ever experienced discrimination?**

1) 0.29060 2) 10203005

- For more information about the study, please contact Dr. John Smith at (555) 123-4567 or via email at [john.smith@researchinstitute.org](mailto:john.smith@researchinstitute.org).

- For more information about the study, please contact Dr. John Smith at (555) 123-4567 or email him at [john.smith@researchinstitute.org](mailto:john.smith@researchinstitute.org).

- 9) 0.91 ————— 10) 1.234 —————

- 11) 007850 \_\_\_\_\_ 12) 0660 \_\_\_\_\_

- 13) 23.0561 \_\_\_\_\_ 14) 8.0 \_\_\_\_\_

- 15) 1.020000 \_\_\_\_\_ 16) 1000 \_\_\_\_\_

- Teaching Resources @ [www.teachingresources.co.uk](http://www.teachingresources.co.uk)

