

1.1 Practice Problems

Evaluate the expression:

1) $.4r$ when $r=6$

$$.4(6) = 2.4$$

2) $.8 + h$ when $h = 3.7$

$$.8 + 3.7$$

$$\textcircled{4.5}$$

3) $\frac{1}{2}k$ when $k = \frac{2}{3}$

$$\frac{1}{2}\left(\frac{2}{3}\right) = \frac{2}{6} = \frac{1}{3}$$

Write the power in words and as a product.

4) 12^5

12 to the 5th power

$$12 \cdot 12 \cdot 12 \cdot 12 \cdot 12$$

$$248832$$

5) $\left(\frac{1}{2}\right)^8$

$\frac{1}{2}$ to the 8th power

$$\frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} = \frac{1}{256}$$

Describe AND correct the error in evaluating the power.

6) $(0.4)^2 = 2(0.4) = 0.8$

$$.4(.4) = .16$$

They multiplied .4 by 2, instead of .4 by .4

Evaluate the power.

7) 1^5

$$1$$

8) 2^6

$$64$$

9) $\left(\frac{1}{6}\right)^3$

$$\frac{1}{216}$$

Evaluate the expression.

10) $x + y$ when $x = 11$ and $y = 6.4$

$$11 + 6.4 = \textcircled{17.4}$$

Page 10: Evaluate the expression:

11) $13 - 8 + 3$

$$5 + 3$$

$$\textcircled{8}$$

12) $5 \cdot 2^3 + 7$

$$5 \cdot 8 + 7$$

$$40 + 7$$

$$\textcircled{47}$$

13) $2^4 \cdot 4 - 2/8$

$$16 \cdot 4 - 2/8$$

$$64 - 2/8$$

$$64 - .25$$

$$\textcircled{63.75}$$

14) $24 + 4(3+1)$

$$24 + 4(4)$$

$$24 + 16$$

$$\textcircled{40}$$

15) $\frac{1}{2}(21+2^3)$

$$\frac{1}{2}(21+8)$$

$$\frac{1}{2}(29)$$

$$\textcircled{14.5}$$

16) $8[20 - (9-5)^2]$

$$8[20 - 4]$$

$$8[16]$$

$$8[4]$$

$$\textcircled{32}$$

Describe and correct the error in evaluating the expression.

$$20 \left(\frac{1}{2} \cdot 6 \right) = 20 - 3^2$$

$$17) = 20 - 9$$

$$= 11$$

EXPONENTS SHOULD HAVE GONE FIRST.
 $20 - \frac{1}{2}(36)$
 $20 - 18 = 2$

Evaluate the expression:

18) $6t^2 - 13$ when $t = 2$

$$6(2)^2 - 13$$

$$6(4) - 13$$

$$24 - 13$$

$$11$$

19) $3(m^2 - 2)$ when $m = 1.5$

$$3(1.5^2 - 2)$$

$$3(2.25 - 2)$$

$$3(.25)$$

$$.75$$

20) $\frac{b^3 - 21}{5b + 9}$ when $b = 3$

$$\frac{3^3 - 21}{5(3) + 9}$$

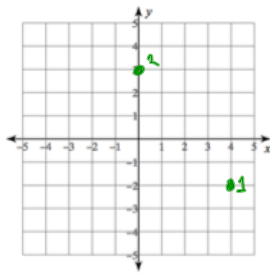
$$\frac{27 - 21}{15 + 9} = \frac{6}{24}$$

$$= .25$$

Skillz Review

Plot the points:

- 1) $(4, -2)$ 2) $(0, 3)$



Simplify:

3) $\frac{5 - (-3)}{10 - 6} = \frac{5 + 3}{4} = \frac{8}{4} = 2$

5) $\frac{10 - 16}{3 - (-3)} = \frac{-6}{3 + 3} = \frac{-6}{6} = -1$

Simplify:

4) $-2(-1)^2 + 4$
 $-2(1) + 4$
 $-2 + 4 = 2$

6) $-4 - \left(\frac{6}{2}\right) + 5(-1)$
 $-4 - 3 + -5$
 $-7 + -5$
 -12