

1. What is the value of the expression

$$\frac{2p}{4} + 3 \text{ when } p \text{ is } 8? \underline{7}$$

$$p=8 \quad 8 \times 2 = 16 \div 4 = 4, \quad 4 + 3 = 7$$

2. Write the expression for 50 less than the sum of 6 and y $(6+y)-50$

3. Find the value of the expression when the variable has a value of 6. 8

⊖ $(y+4) \div 2 + 3 \quad y=6$

1. Write an expression $(6+4) \div 2 + 3$

4. Add 4 to r, then divide by 3 $(10 \div 2 + 3) = 8$

$$(4+r) \div 3$$

5. Divide 8 by x, then subtract 4

$$\left(\frac{8}{x}\right) - 4$$

6. Half of r.

⊖

7. $\frac{1}{2} \times r$

8. $\frac{1}{2} r$

Simplify

7. $4h + 5 + 6h$ $4h + 6h = 10h + 5 = 1h$

$10h + 5$

8. $12 - 6x + 2x$ $4x + 2x = 8x$ $12 - 8x = 4$

$12 - 8x$

9. $10y - 2y - 4 = 4$

$8y - 4 = 4$

10. Beth has y dollars. She spends \$10 on a purse and the rest on 3 candy bars.

a. Find the cost of each candy bar in terms of y .

$3c + 10$

b. If Beth had \$19 at first, find the cost of each candy bar.

$3c + 10 = 19$

$3c = 9$

$c = 3$

$$\begin{array}{r} 3c \\ 3 \overline{) 9} \\ \underline{9} \\ 0 \end{array}$$

$$\frac{9}{3} = 3$$

 $c = 3$

Study Guide

Evaluate each expression shown using $y=4$.

1. $3y - 2 = 10$

$3 \times 4 = 12 - 2 = 10$

2. $(28 - 3y) \div 2 = 8$

$4 \times 3 = 12$ $28 - 12 = 16 \div 2 = 8$

3. $2y + 7 = 15$

$2 \times 4 = 8 + 7 = 15$

4. $(10 + 8y) \div 3 = 14$

$10 + 32$ $8 \times 4 = 32$ $42 \div 3 = 14$

5. What is the value of the expression when

$y = 2$?

$\frac{4y}{2} + 8$

$4 \times 2 = 8$

$8 \div 2 = 4 + 8 = 12$

6. What is the value of the expression when $r = 6$?

$\frac{3r}{9} - 1$

$3 \times 6 = 18$

$18 \div 9 = 2 - 1 = 1$

7. Write an expression for 40 less than the sum of 8 and t .

$(8 + t) - 40$

8. Find the value of the expression when the variable has a value of 2.

$(y + 18) \div 5 + 3$

$4 + 3 = 7$

$(2 + 18) \div 5 + 3$

$20 \div 5 + 3$

1. Write an expression

9. Add 7 to b , then divide by 5.

$$(7+b) \div 5$$

10. Divide 6 by r , then subtract 3

$$\frac{6}{r} - 3$$

Simplify

11. $9d - 4d + 7$ (2) 12. $14 - 8y + 2y$

$$9d - 4d + 7 = 5d + 7$$

$$5d + 7 = 12$$

$$14 - 8y + 2y = 14 - 6y$$

$$14 - 6y = 4$$

13. Sue has x dollars. She spends \$12 on a coffee cup and the rest on 2 ice teas.

a. Find the cost of each ice tea in terms of x

$$2i + 12$$

b. If Sue had \$18 at first, find the cost of each ice tea.

$$2i + 12 = 18$$

$$(3)$$

$$\frac{2i}{2} = \frac{6}{2}$$

$$i = 3$$