



## Evaluating Variable Expressions

When evaluating variable expressions be sure to :

1. Replace each variable with the value given .
2. Simplify or do the arithmetic .

**Examples:** Evaluate each expression if  $m = 3$  and  $n = 20$ .

$$m + n =$$

$$3 + 20 =$$

$$23$$

$$n - m =$$

$$20 - 3 =$$

$$17$$

$$m - n =$$

$$3 - 20 =$$

$$-17$$

$$2m + 4n =$$

$$2(3) + 4(20) =$$

$$6 + 80 =$$

$$86$$

$$3n^2 =$$

$$3(20)^2 =$$

$$3(400) =$$

$$1,200$$

Evaluate each expression if  $a = 4$  and  $b = 12$ .

$$1. \quad a + b$$

$$2. \quad b - a$$

$$3. \quad a - b$$

$$4. \quad ab$$

$$5. \quad \frac{b}{a}$$

$$6. \quad \frac{a}{b}$$

Evaluate each expression if  $x = 10$ ,  $y = 15$  and  $z = 20$ .

$$7. \quad x + y + 5$$

$$8. \quad z - x + 17$$

$$9. \quad y - x + 2$$

$$10. \quad 5x$$

$$11. \quad 2y$$

$$12. \quad xz$$

$$13. \quad 2x + y$$

$$14. \quad x^2$$

$$15. \quad \frac{2z}{x}$$

$$16. \quad yz - z$$

$$17. \quad 91 - z$$

$$18. \quad 4z - 3x$$