2.5a Translate to an Algebraic Expression

Addition

_____ 1. The **sum** of a and 8

_____ 2. 4 **plus** c

_____ 3. 16 **added to** m

_____ 4. 20 **more than** f

_____ 5. T **increased by** r

Subtraction

_____ 1. The **difference of** 23 and p

_____ 2. 550 **minus** h

* _____ 3. W **less than** 25

_____ 4. 7 **decreased by** j

_____ 5. M **reduced by** x

* _____ 6. 12 **subtracted from** l

Multiplication

_____ 1. The **product of** 4 and x

_____ 2. 20 **times** b

_____ 3. **Twice** x

_____ 4. $\frac{3}{4}$ **of** m

_____ 5. 7 **multiplied by** x

Division

_____ 1. The **quotient of** r and 19

_____ 2. x **divided by** d

_____ 3. The **ratio of** c to d

_____ 4. The price p **per** gallon g

Mixed Practice

_____ 1. Eight more than one –
fourth of d

_____ 2. Five less than twice a
number

_____ 3. Seven increased by the
product of two numbers

_____ 4. one half of some number

_____ 5. A number m plus six
times n

_____ 6. The sum of m and n

_____ 7. Thirty-four divided by x

_____ 8. The quotient of two
numbers subtracted from 20

_____ 9. The product of six and
three less than the number

_____ 10. Twice the sum of a
number and eight

Words indicating equality, = : is the same as, equal, **is**, are

Let n represent the **number** and translate each phrase or sentence.

1. Four more than a number.

2. Four times a number

3. Four less than a number

4. A number increased by four

5. A number decreased by four

6. The product of four and a number

7. Six more than five times a number

8. Six less than five times a number

9. Nine less than twice a number

10. A number divided by 7

11. The product of a number and seven more than the number

12. The product of a number and seven less than the number

13. Eight less than twice a number is fourteen.

14. One less than three times a number is seven.

15. Four more than five times a number is two less than the number.

16. Ten less than a number is three more than six times the number.

17. Twice the sum of a number and 3 is 20.

Substitution

Substitute and simplify.

$a = 3$, $b = -9$, $c = 5$

1. $a^2 + b^3 =$

2. $(a + b)^2 =$

3. $a + b - c =$

4. $(c - a)^2 =$

5. $2a - b - 3c =$

6. $(b + c)^2 =$

7. $b^2 + c^2 =$

8. $a^3 - (b + c)^2 =$

9. $-4b + (a + c)^2 =$

10. $abc =$

Substitute and simplify.

$a = -6$, $b = -3$, $c = 4$

1. $3a - 4b =$

2. $7c + b^3 =$

3. $a^2 - b^2 =$

4. $(a - b)^2 =$

5. $a^2 + b^2 =$

6. $(a + b)^2 =$

7. $c^2 - ab =$

8. $2c + 3a - 4b =$

9. $a^2 - (b + c)^3 =$

10. $(a + b + c)^2 =$

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