

Secondary 1

Solve each equation.

1) $x + (-13) = -6$

2) $a + 16 = 11$

3) $12 = x - 8$

4) $-13 = -4 + k$

5) $3 = x - 4$

6) $3 = p - 16$

7) $-14 = n + (-17)$

8) $2 = 12 + m$

9) $-9 + r = 9$

10) $-2 = n - 2$

11) $-12 + b = -23$

12) $8 + v = 26$

13) $-14 = x - 20$

14) $1 = x + (-4)$

15) $a - 4 = -15$

16) $1 = k + (-16)$

17) $-15 = n - 16$

18) $x + (-8) = -7$

19) $n - 12 = -24$

20) $m - 1 = 15$

21) $p + (-20) = -7$

22) $9 = x + 9$

23) $m - 17 = -2$

24) $-25 = -12 + n$

25) $8 = x + 4$

26) $8 = r - 4$

27) $16 = 17 + x$

28) $-16 + b = -1$

29) $-2 = v - 13$

30) $-9 = 5 + n$

Secondary 1

Date _____

Solve each equation.

1) $56 = 14a$

2) $7m = 7$

3) $\frac{k}{11} = 9$

4) $\frac{x}{8} = -\frac{1}{4}$

5) $16 = \frac{x}{3}$

6) $17n = -323$

7) $-40 = -4m$

8) $\frac{r}{15} = 4$

9) $16 = \frac{x}{5}$

10) $\frac{n}{7} = -10$

11) $13b = 117$

12) $-32 = -4v$

13) $\frac{x}{20} = 10$

14) $-4 = \frac{n}{10}$

15) $-90 = 18k$

16) $51 = -3x$

17) $17 = \frac{a}{11}$

18) $\frac{x}{17} = 5$

19) $18 = \frac{n}{5}$

20) $14p = -252$

21) $-7x = -133$

22) $\frac{n}{19} = 12$

23) $-12 = \frac{m}{15}$

24) $\frac{m}{6} = 13$

$$25) \frac{p}{9} = -\frac{2}{9}$$

$$26) 6 = \frac{r}{10}$$

$$27) -12 = -2n$$

$$28) 10x = 190$$

$$29) -19 = \frac{v}{3}$$

$$30) \frac{b}{18} = -\frac{7}{18}$$

Algebraic Word Problems

1. Translate the following phrases into expressions.

- a) 9 more than x
- b) 6 fewer than y
- c) 25 times n
- d) \$60 shared equally by p people
- e) 5 is added to two times w
- f) the sum of 9 less than b and b
- g) eight more than the ratio of a number and 3
- h) Express the perimeter of a square in terms of its side length, s .

2. Translate these words into an equation.

- a) Habbib is 3 years younger than Malha.
The sum of their ages is 17.
- b) When 7 is added to half of a number
the result is 11.
- c) Felipe has d dollars. Jade has 7 more
dollars than Felipe. The sum of their
money is 23 dollars.
- d) The perimeter of a rectangle is 36 units.
The length is twice the width, w .
- e) The area of a square is 49 square units.
Write an equation for the side length, s .

Skill Builder**1 Introduction to Variables****EVALUATED**

- 1** Use an equation with a variable to solve the following:

When 12 is subtracted from a number, the result is 5. What is the number?

- 2** Use an equation with a variable to solve the following:

When 20 is added to a number, the result is 34. What is the number?

- 3** Use an equation with a variable to solve the following:

When 28 is divided by a number the answer is 4. What is the number?

- 4** Use an equation with a variable to solve the following:

A number times 11 is 99. What is the number?

- 5** Use an equation with a variable to solve the following:

Ten acorns are hanging from a tree branch. After a gust of wind, 4 acorns remain. How many acorns have fallen?

- 6** Use an equation with a variable to solve the following:

A classroom contains 300 books. 225 of the books are fiction. How many are non-fiction?

- 7** Use an equation with a variable to solve the following:

Grandpa has \$48 to give to his grandchildren. Each grandchild gets \$8. How many grandchildren are there, assuming they each get the same amount?

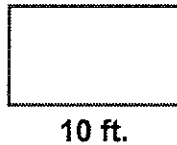
- 8** Use an equation with a variable to solve the following:

Amy can do one math problem in 3 minutes. How many problems can she do in 21 minutes?

Skill Builder

- 9** Use an equation with a variable to solve the following:

If the area of this rectangle is 60 sq. ft., find the missing dimension.



- 10** Use an equation with a variable to solve the following:

If the perimeter of this hexagon is 40 units, find the length of the missing side.

