



Name: _____ Date: _____ Section: _____

LINEAR EQUATIONS

Solve the equations.

1 a. $6 = \frac{c-9}{5}$

1 b. $\frac{3p}{4} = 8$

2 a. $7 = \frac{v}{5}$

2 b. $\frac{t}{1} = 9$

3 a. $11 = \frac{3x}{12}$

3 b. $\frac{w}{1} = 6$

4 a. $7y + 11 = 6$

4 b. $k + 11 = 9$

5 a. $4 + n = 2 + 9$

5 b. $4x - 8x = 5$



6 a. $\frac{m}{7} = 1$

6 b. $6w = 7 + 1$

7 a. $2 = 12k - 3$

7 b. $m + 4 = 10$

8 a. $12 = \frac{b + 11}{11}$

8 b. $t + 12 = 7$

9 a. $6 = 9x$

9 b. $7 = 2b - 9b$

10 a. $t - 9 = 10$

10 b. $7 - w = 12$

LINEAR EQUATIONS



Solve the equations.

1 a. $5w = 3$	1 b. $\frac{k}{2} = 9$
2 a. $4 + s = 7$	2 b. $1 = 3z$
3 a. $\frac{y}{2} = 6 - 12$	3 b. $5 + c = 6$
4 a. $11 = 12y - 7y$	4 b. $\frac{w}{6} = 10$
5 a. $7 = 3m - 12m$	5 b. $2 = \frac{y}{10}$
6 a. $5b + 6b = 1$	6 b. $7 = 11 - p$



7 a. $z + 2 = 3$

7 b. $10 - p = 3$

8 a.
 $2 \cdot 6 = \frac{x}{7}$

8 b.
 $\frac{n}{12} = 3$

9 a. $3n = 5$

9 b. $4a = 2$

10 a. $11 = 11v$

10 b. $s + 1 = 3$

LINEAR EQUATIONS



Solve the equations.

1 a. $t + 12 = 3$	1 b. $2 + 3 = 12(s - 3)$
2 a. $2 = \frac{4 - z}{3}$	2 b. $9n + 4n = 10$
3 a. $b + 8 = 6$	3 b. $\frac{z - 6}{9} = 4$
4 a. $1 = z - 7$	4 b. $\frac{n}{3} = 5 \cdot 3$
5 a. $10 = 5 - 6b$	5 b. $11 \cdot 12 = 5(t + 12)$
6 a. $11 + w = 8$	6 b. $b - 12 = 9$



7 a. $11 - 2m = 10$

7 b. $y + 8 = 5$

8 a. $m + 2 = 4 \cdot 7$

8 b. $12 = 10 - w$

9 a. $12 = 2t + 1$

9 b. $9 = 11b$

10 a. $12k = 12$

10 b. $7 = 12c$

11 a. $3 - 9 = 7 - m$

11 b. $12 + 11 = 7 + x$

12 a. $m - 7 = 9$

12 b. $5 - 1 = 6 - w$



13 a. $7 = 9(z + 10)$

13 b. $10s = 1$

14 a. $n - 11 = 12$

14 b. $12 = 2x$

15 a. $4x = 1$

15 b. $9 = \frac{y-9}{5}$

16 a. $4 = x - 3$

16 b. $9(k - 1) = 8$

17 a. $\frac{a}{2} = 4 - 5$

17 b. $\frac{c}{3} = 10$



18 a. $3 \cdot 3 = 9 + c$

18 b. $5 + 6 = 9(m - 9)$

19 a. $11(m + 1) + 5 = 6$

19 b. $7t + 10 = 12$

20 a. $p + 9 = 8$

20 b. $10 = \frac{s}{7}$

LINEAR EQUATIONS

Solve the equations.

1 a. $12 = \frac{x + 1}{4}$

1 b. $\frac{11 - z}{10} = 1$

2 a. $6 = \frac{12 - z}{12}$

2 b. $2 = b - 10$



3 a. $w + 8 = 12$

3 b. $v + 11 = 10$

4 a. $7 + 7 = 9p$

4 b. $9n + 3 = 11$

5 a. $3 = 11v$

5 b. $8 \cdot 11 = s - 1$

6 a. $6 + 12 = 11 + k$

6 b. $c + 1 = 10$

7 a. $w + 6 = 12 \cdot 11$

7 b. $10 + y = 9$

8 a. $2t + 7t = 7$

8 b. $8 = y - 4$



9 a. $p + 9 = 1$

9 b. $7 = \frac{b + 11}{8}$

10 a. $2 = \frac{8z}{5}$

10 b. $3 = 2n$

11 a. $12 - b = 6$

11 b. $5 + y = 12$

12 a. $8 + 12 = 5c$

12 b. $4 - v = 10$

13 a. $3 + w = 5 + 11$

13 b. $w - 6 = 2$



14 a. $9 = 10z - 7$

14 b. $7 = \frac{8 - w}{12}$

15 a. $3 + y = 4$

15 b. $1 = b - 3$

16 a. $\frac{m + 4}{9} = 4$

16 b. $6 - 3y = 2$

17 a. $z - 1 = 10$

17 b. $8 = 4b$

18 a. $4 = \frac{6y}{2}$

18 b. $2a - 9 = 7$



19 a. $\frac{c+6}{11} = 3$	19 b. $1 = 5 - s$
20 a. $4 = y - 5$	20 b. $9 = n - 2$

VARIABLE EXPRESSIONS

Find the value of the expressions for the given values of the variable(s).

1 a. $t + 8$, when $t = 6$	1 b. $d - 8$, when $d = 10$
2 a. $w + 8$, when $w = 1$	2 b. $u + 8$, when $u = 7$
3 a. $10pc$, when $p = 4$ and $c = 9$	3 b. y^3 , when $y = 4$



4 a. $9 - u$, when $u = 5$

4 b. $4p$, when $p = 8$

5 a. $y - d$, when $y = 7$ and $d = 7$

5 b. $x + 3 + y$, when $x = 5$ and $y = 3$

6 a. $6 + k$, when $k = 8$

6 b. $t + 9$, when $t = 4$

7 a. p^2 , when $p = 8$

7 b. $4ns$, when $n = 9$ and $s = 4$

8 a. $\frac{p}{7}$, when $p = 2$

8 b. $a + n$, when $a = 10$ and $n = 9$

9 a. n^6 , when $n = 4$

9 b. $s - v - 9$, when $s = 8$ and $v = 7$



10 a. $y - x - 8$, when $y = 7$ and $x = 5$

10 b. d^β , when $d = 4$

11 a. $r - x$, when $r = 9$ and $x = 10$

11 b. $\frac{6}{v}$, when $v = 7$

12 a. $8r$, when $r = 10$

12 b. $s + 2 + d$, when $s = 10$ and $d = 5$

SIMPLIFY EXPRESSIONS

Simplify the expressions.

1 a. $6 + 5k - 9 - 5k$

1 b. $9w + 9w$

2 a. $10m - 4 + 3 - 9m$

2 b. $5p - 7p + 3 + 9p$



3 a. $4 + 10(6z + 2)$

3 b. $6v - 6 + 6 - 4v$

4 a. $7 + 7(6c + 2)$

4 b. $6 + 3(9x + 10)$

5 a. $7(p + 7) - 2$

5 b. $8 - 6m + 4m + 8 + 6m$

Topic : Ratio



Q1) Simplify each of the following ratios on its simplest form.

a) $\frac{9}{20} : \frac{3}{5}$

b) $3b : 132$

c) $1.44 : 0.48$

d) $162 : 384$

Q2) Find the value of "a" in each of the following ratios.

a) $14 : 9 = 4 : a$

b) $12 : 25 = a : 5$

Q3) Simplify each of the following.

a) $25\text{min} : 1\text{ h}$

b) $65\text{ cents} : \$ 1$

c) $3.5\text{ h} : 75\text{ min}$

Topic : Time

Q1) Express 45 minutes after 6.55pm using the 24-hour clock notations.

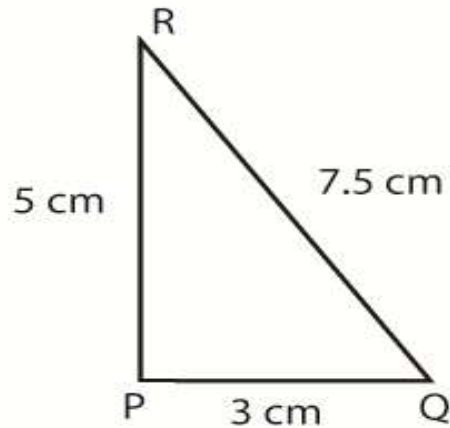
Q2) A journey starting at 08 30 takes $4\frac{1}{4}$ hours. Find the time the journey ends.

Q3) Hamid travel by plane from London to Bangkok.
When it is 04 00 local time in London it is 10 00 local time in Bangkok.
If he leaves London at 21 50 local time what is the local time in bangkok when he departed.

Topic : Perimeter and Area



Q1) Find the area of triangle PQR.



Topic : Geometrical Constructions

Q1) Draw a line segment AB of length 10cm construct the perpendicular bisector of AB.

Q2) Draw an angle BAC of 65. Construct the angle bisectors of BAC.