**Solving Linear Equations**

Solve each equation.

1. n – 20 = 5

 *SOLUTION*:

 n – 20 = 5

 n – 20 + 20 = 5 + 20

 n = 25

 *ANSWER*:

n = 25

2. 104 = y - 67

 *SOLUTION*:

104 = y – 67

 104 + 67 = y – 67 + 67

 171 = y

 *ANSWER*:

y = 171

3. -4 + t = -7

 *SOLUTION*:

 -4 + t = -7

 -4 + 4 + t = -7 + 4

 t = -3

*ANSWER*:

t = -3

4. g + 5 = 33

*SOLUTION*:

 g + 5 = 33

 g + 5 – 5 = 33 – 5

 g = 28

 *ANSWER*:

g = 28

5. 19 + p = 6

 *SOLUTION*:

 19 + p = 6

 19 – 19 + p = 6 – 19

 p = -13

 *ANSWER*:

p = -13

6. 15 = b – (-65)

 *SOLUTION:*

15 = b – (-65)

15 – 65 = b – (-65) – 65

b = -50

*ANSWER*:

b = -50

13. v – 9 = 14

 *SOLUTION*:

v – 9 = 14

 v – 9 + 9 = 14 + 9

 v = 23

 *ANSWER*:

 v = 23

14. 44 = t – 72

*SOLUTION*:

44 = t – 72

 44 + 72 = t – 72 + 72

 116 = t

*ANSWER*:

 t = 116

15. -61 = d + (-18)

*SOLUTION*:

-61 = d + (-18)

 -61 + 18 = d + (-18) + 18

 d = -43

 *ANSWER*:

 d = -43

16. p + (-26) = 16

*SOLUTION*:

p + (-26) = 16

 p + (-26) + 26 = 16 + 26

 p = 42

 *ANSWER*:

 p = 42

17. 18 + z = 40

*SOLUTION*:

18 + z = 40

18 – 18 + z = 40 – 18

z = 22

 *ANSWER*:

 z = 22

18. 19 = c + 12

*SOLUTION*:

19 = c + 12

 19 – 12 = c + 12 – 12

 7 = c

 *ANSWER*:

 c = 7

19. n + 23 = 4

*SOLUTION*:

n + 23 = 4

 n + 23 – 23 = 4 – 23

 n = -19

 *ANSWER*:

 n = -19

20. -67 = 11 + k

*SOLUTION*:

-67 = 11 + k

-67 – 11 = 11 – 11 + k

-78 = k

 *ANSWER*:

 k = -78

Page 86

14. $\frac{x}{9}=10$

 *SOLUTION:*

$\frac{x}{9}=10$

 $\frac{x}{9}\*9=10\*9$

 x = 90

 *ANSWER:*

 x = 90

15. $\frac{b}{7}=-11$

 *SOLUTION:*

$\frac{b}{7}=-11$

 $\frac{b}{7}\*7=-11\*7$

 b = -77

 *ANSWER:*

 b = -77

16. $\frac{3}{4}=\frac{c}{24}$

 *SOLUTION*:

$\frac{3}{4}=\frac{c}{24}$

 $\frac{3}{4}\*24=\frac{c}{24}\*24$ The LCD for the fractions is 24

 18 = c

 *ANSWER*:

c = 18

17. $\frac{2}{3}=\frac{1}{8}y$

 *SOLUTION*:

$\frac{2}{3}=\frac{1}{8}y$

 $\frac{2}{3}\*24=\frac{1}{8}y\*24$ The LCD for the fractions is 24

 16 = y

 *ANSWER*:

y = 16

18. $\frac{2}{3}n=14$

 *SOLUTION*:

$\frac{2}{3}n=14$

 $\frac{2}{3}n\*\frac{3}{2}=14\*\frac{3}{2}$ $\frac{3}{2}$ undoes the fraction with n

 n = 21

 *ANSWER*:

n = 21

19. $\frac{3}{5}g=-6$

 *SOLUTION*:

$\frac{3}{5}g=-6$

 $\frac{3}{5}g\*\frac{5}{3}=-6\*\frac{5}{3}$ $\frac{5}{3}$ undoes the fraction with g

 g = -10

 *ANSWER*:

g = -10