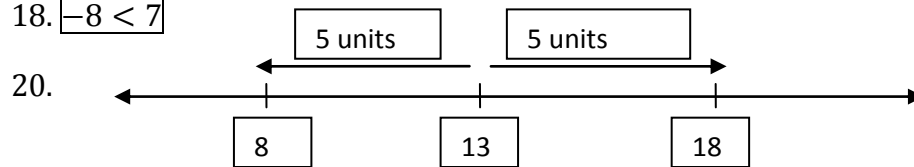


Study Guide and Review (pages 75-78), #14-40 (even), 44-56 (even)

14. $3b^2 = 3(2)^2 = 3 \cdot 4 = \boxed{12}$

16. $\frac{(a+2)^2}{bc} = \frac{(6+2)^2}{2 \cdot 1} = \frac{8^2}{2} = \frac{64}{2} = \boxed{32}$

18. $\boxed{-8 < 7}$



22. $|-12| - |4| = 12 - 4 = \boxed{8}$

24. $100 + (-75) = \boxed{25}$

26. $38 + (-46) = \boxed{-8}$

28. $-5 + 34 = \boxed{29}$

30. $11 - 15 = 11 + (-15) = \boxed{-4}$

32. $-4(-25) = \boxed{100}$

34. $-15(-4)(-1) = \boxed{-60}$

36. $\frac{-170}{-5} = \boxed{34}$

38. $6(-2) = \boxed{-12}$

40. $n = \boxed{\frac{1}{4}l}$

44. $x - 3 = 10$

$$\begin{array}{r} +3 \quad +3 \\ \hline x = 13 \end{array}$$

Check: $13 - 3 = 10,$
 $10 = 10 \checkmark$

46. $9 = a + 31$

$$\begin{array}{r} -31 \quad -31 \\ \hline -22 = a \end{array}$$

Check: $9 = -22 + 31,$
 $-9 = -9 \checkmark$

48. $27 = y - 12$

$$\begin{array}{r} +12 \quad +12 \\ \hline 39 = y \end{array}$$

Check: $27 = 39 - 12,$
 $27 = 27 \checkmark$

50. Let r be the rainfall between August 15 to August 31

$$\begin{array}{r} -2 + r = 1 \\ +2 \quad +2 \\ \hline r = 3 \end{array} \qquad \begin{array}{l} \text{Check } -2 + 3 = 1 \\ 1 = 1 \checkmark \end{array}$$

Ans. The rainfall between August 15 and August 31 is 3 inches.

$$\begin{array}{r} 52. \quad -4x = 52 \\ \quad -4 \quad -4 \\ \hline x = -13 \end{array} \qquad \begin{array}{l} \text{Check } (-4)(-13) = 52 \\ 52 = 52 \checkmark \end{array}$$

$$\begin{array}{r} 54. \quad -10 \cdot \frac{y}{-10} = -15 \cdot -10 \\ \\ y = 150 \end{array} \qquad \begin{array}{l} \text{Check } \frac{150}{-10} = -15 \\ -15 = -15 \checkmark \end{array}$$

56. Let q be the cost of a quart of motor oil.

$$\begin{array}{r} 12q = 36 \\ 12 \quad 12 \\ \hline q = 3 \end{array} \qquad \begin{array}{l} \text{Check } (12)(3) = 36 \\ 36 = 36 \checkmark \end{array}$$

Ans: A quart will cost \$3.