

(22) $|n-3|=5$

$$\begin{array}{r|l} n-3 & = 5 \\ +3 & +3 \\ \hline n & = 8 \end{array} \quad \begin{array}{r|l} n-3 & = -5 \\ +3 & +3 \\ \hline n & = -2 \end{array}$$



(25) $|4t-8|=20$

$$\begin{array}{r|l} 4t-8 & = 20 \\ +8 & +8 \\ \hline 4t & = 28 \\ \frac{4t}{4} & = \frac{28}{4} \\ \hline t & = 7 \end{array} \quad \begin{array}{r|l} 4t-8 & = -20 \\ +8 & +8 \\ \hline 4t & = -12 \\ \frac{4t}{4} & = \frac{-12}{4} \\ \hline t & = -3 \end{array}$$



(26) $|8w+5|=21$

$$\begin{array}{r|l} 8w+5 & = 21 \\ -5 & -5 \\ \hline 8w & = 16 \\ \frac{8w}{8} & = \frac{16}{8} \\ \hline w & = 2 \end{array} \quad \begin{array}{r|l} 8w+5 & = -21 \\ -5 & -5 \\ \hline 8w & = -26 \\ \frac{8w}{8} & = \frac{-26}{8} \\ \hline w & = -3\frac{1}{4} \end{array}$$



(27) $|6y-7|=-1$

~~impossible~~ impossible

absolute value cannot be neg.

(28) $|\frac{1}{2}x+5|=-3$

impossible

absolute value cannot be neg.

(29) $|-2y+6|=6$

$$\begin{array}{r|l} -2y+6 & = 6 \\ -6 & -6 \\ \hline -2y & = 0 \\ \frac{-2y}{-2} & = \frac{0}{-2} \\ \hline y & = 0 \end{array} \quad \begin{array}{r|l} -2y+6 & = -6 \\ -6 & -6 \\ \hline -2y & = -12 \\ \frac{-2y}{-2} & = \frac{-12}{-2} \\ \hline y & = 6 \end{array}$$



(30) $|\frac{3}{4}a-3|=9$

$$\begin{array}{r|l} \frac{3}{4}a-3 & = 9 \\ +3 & +3 \\ \hline \frac{3}{4}a & = 12 \\ (\frac{4}{3}) \frac{3}{4}a & = 12(\frac{4}{3}) \\ \hline a & = 16 \end{array} \quad \begin{array}{r|l} \frac{3}{4}a-3 & = -9 \\ +3 & +3 \\ \hline \frac{3}{4}a & = -6 \\ (\frac{4}{3}) \frac{3}{4}a & = -6(\frac{4}{3}) \\ \hline a & = -8 \end{array}$$

$$(31) \quad 11 - 19\%$$

$$(33) \quad |x| = 4$$

$$(35) \quad |x-1| = 4$$

$$(32) \quad \text{a) } 3:55 - 4:05$$

$$(34) \quad |x| = 6$$

$$(36) \quad |x+2| = 4$$

$$\text{b) } 2:35 - 2:45$$

$$(40) \quad \begin{array}{r|l} 2|h| - 3 = 8 & \\ +3 & +3 \\ \hline 2|h| & = \frac{11}{2} \\ \hline |h| & = 5.5 \end{array}$$

$$h = 5.5 \quad h = -5.5$$

$$(41) \quad \begin{array}{r|l} 4 - 3|q| = 10 & \\ -4 & -4 \\ \hline -3|q| & = 6 \\ \hline -3 & -3 \\ \hline |q| & = -2 \end{array}$$

impossible
absolute value cannot be neg.

$$(57) \quad \text{Sometimes} \quad \text{if } x = -1 \quad |-1+1| = |0| = 0$$

$$(58) \quad \text{Sometimes} \quad \text{SAME AS ABOVE}$$

$$(59) \quad \text{Sometimes} \quad \text{if } x = -2 \quad \text{and } c = -3 \quad |-2+(-3)| = -1$$

$$(60) \quad \text{always}$$