Pages 106-108 ~~Set~~ Exercises 22, 25-36, 40-41, 57-60

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

$n-3 = 5$ | $n-3 = -5$

$+3 \quad +3$ | $+3 \quad +3$

$n = 8$ | $n = -2$

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

$4t-8 = 20$ | $4t-8 = -20$

$+8 \quad +8$ | $+8 \quad +8$

$\frac{4t}{4} = \frac{28}{4}$ | $\frac{4t}{4} = \frac{-12}{4}$

$t = 7$ | $t = -3$

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

$8w+5 = 21$ | $8w+5 = -21$

$-5 \quad -5$ | $-5 \quad -5$

$\frac{8w}{8} = \frac{16}{8}$ | $\frac{8w}{8} = \frac{-26}{8}$

$w = 2$ | $w = -3\frac{1}{4}$

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

~~6y~~ impossible

absolute value cannot be neg.

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

impossible

absolute value cannot be neg.

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

$-2y+6 = 6$ | $-2y+6 = -6$

$-6 \quad -6$ | $-6 \quad -6$

$\frac{-2y}{-2} = \frac{0}{-2}$ | $\frac{-2y}{-2} = \frac{-12}{-2}$

$y = 0$ | $y = 6$

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

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

$+3 \quad +3$ | $+3 \quad +3$

$\left(\frac{4}{3}\right)\frac{3}{4}a = 12\left(\frac{4}{3}\right)$ | $\left(\frac{4}{3}\right)\frac{3}{4}a = -6\left(\frac{4}{3}\right)$

$a = 16$ | $a = -8$

(31) $11 - 19\%$

(32) @ 3:55 – 4:05

(b) 235 – 245

(33) $|x| = 4$

(34) $|x| = 6$

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

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

(40)
$$2|h| - 3 = 8$$
$$+3 \quad +3$$
$$\frac{2|h|}{2} = \frac{11}{2}$$
$$|h| = 5.5$$

$h = 5.5 \quad h = -5.5$

(41)
$$4 - 3|q| = 10$$
$$-4 \quad -4$$
$$\frac{-3|q|}{-3} = \frac{6}{-3}$$
$$|q| = -2$$

impossible

absolute value cannot be neg.

(57) Sometimes. if $x = -1$ $|-1+1| = |0| = 0$

(58) Sometimes SAME AS ABOVE

(59) Sometimes if $x = -2$ and $c = -3$ $|-2| + (-3) = -1$

(60) always