15)

$$\boxed{\frac{15-a}{3} = -9}$$

$$\not{3} \cdot \frac{15-a}{\not{3}} = -9$$

$$15-a = -27$$
$$-15 \qquad -15$$

$$-a = -42$$

$$\boxed{a = 42}$$

D	U
P	S A
E	M D
M D	E
A S	P

$$\overset{1}{n} \quad \overset{3}{n+2} \quad \overset{5}{n+4}$$

23.)

$$\underline{\quad n \quad} + \underline{(n+2)} + \underline{(n+4)} = 117$$

$$3n + 6 = 117$$
$$ -6 \quad\quad -6$$
$$3n = 111$$
$$n = 37$$

$$\left(\begin{array}{c} 37 \\ 39 \\ 41 \end{array}\right)$$

2-4 Solving Equations with Variables on Each side

$$3w + 2 = 7w$$
$$-3w \qquad -3w$$
$$2 = 4w$$
$$\frac{2}{4} = \frac{4w}{4}$$
$$\boxed{\frac{1}{2} = w}$$

$$3\left(\tfrac{1}{2}\right) + 2 = 7\left(\tfrac{1}{2}\right)$$
$$\checkmark \; 3.5 = 3.5$$

$$5a + 2 = 6 - 7a$$
$$+7a \qquad \qquad + 7a$$

$$12a + 2 = 6$$
$$ -2 \quad -2$$

$$\frac{12a}{12} = \frac{4}{12}$$

$$\boxed{a = \frac{1}{3}}$$

$$5\left(\tfrac{1}{3}\right) + 2 = 6 - 7\left(\tfrac{1}{3}\right)$$
$$\checkmark 3\tfrac{2}{3} = 3\tfrac{2}{3}$$

$$5a + 2 = 6 - 7a$$
$$-5a \qquad\qquad -5a$$
$$2 = 6 - 12a$$
$$-6 \quad -6$$
$$\frac{-4}{-12} = \frac{-12a}{-12}$$
$$\frac{1}{3} = a$$

$$\frac{x}{2} + 1 = \frac{1}{4}x - \frac{6}{}$$
$$\phantom{\frac{x}{2}} +6 \qquad\qquad +6$$

$$\frac{x}{2} + 7 = \frac{1}{4}x$$

$$\frac{4}{1}\left(\frac{1}{2}x + 7\right) = \frac{1}{4}x \cdot \frac{4}{1}$$

$$2x + 28 = x$$
$$-2x \qquad\qquad -2x$$

$$28 = -x$$
$$\boxed{-28 = x}$$

$$\frac{x}{2} + 1 = \frac{1}{4}x - 6$$
$$-1 \qquad\qquad -1$$

$$\frac{2}{1} \cdot \frac{x}{2} = \left(\frac{1}{4}x - 7\right)2$$

$$x = \frac{2}{4}x - 14$$
$$-\frac{2}{4}x \quad -\frac{2}{4}x$$

$$\frac{1}{2}x = -14 \cdot 2$$

$$\boxed{x = -28}$$

$$8x - 10 = 3(6 - 2x)$$
$$8x - 10 = 18 - 6x$$

$$7x + 5(x-1) = -5 + 12x$$
$$7x + 5x - 5 = -5 + 12x$$
$$12x - 5 = -5 + 12x$$
$$ +5 \quad +5$$
$$12x = 12x$$
$$x = \text{all real } \#s$$

$$6(y-5) = 2(10+3y)$$
$$6y - 30 = 20 + 6y$$
$$-6y \qquad\qquad -6y$$
$$-30 \neq 20$$
$$y = \text{NO SOLUTION}$$

Two times the least of three consecutive odd integers exceeds three times the greatest by fifteen. What are the integers?

$$2n \qquad \geqslant 3(n+4)$$

This side is 15 bigger

24.) $2n - 15 = 3(n + 4)$

to equal we need to subtract the 15 to get it equal.

$$2n - 15 = 3n + 12$$
$$+15 \qquad\qquad +15$$
$$2n = 3n + 27$$
$$-3n \quad -3n$$
$$-n = 27$$
$$\boxed{n = -27}$$

n	n+2	n+4
−27		
−25		
−23		

Three consecutive odd integers.