

W-PA Pre-Algebra Week 25 3/22

$$1.) \quad x + \frac{4}{3} = -\frac{1}{9}$$

$$\quad \quad -\frac{4}{3} \quad \quad -\frac{4}{3}$$

$$x = -\frac{1}{9} + \left(-\frac{4}{3}\right)$$

$$-\frac{1}{9} = -\frac{1}{9} \quad x = -\frac{1}{9} + \left(-\frac{12}{9}\right)$$

$$-\frac{4}{3} \xrightarrow{\times 3} -\frac{12}{9}$$

$$\frac{13}{9}$$

$$\boxed{x = -\frac{13}{9}}$$

$$2.) \quad a - \frac{13}{8} = -\frac{23}{4}$$

$$\quad \quad +\frac{13}{8} \quad \quad +\frac{13}{8}$$

$$a = -\frac{23}{4} + \frac{13}{8}$$

$$-\frac{23}{4} \xrightarrow{\times 2} -\frac{46}{8}$$

$$\frac{13}{8} = \frac{13}{8}$$

$$a = -\frac{46}{8} + \frac{13}{8}$$

$$\boxed{-\frac{33}{8}}$$

$$3.) \quad x - 1\frac{1}{3} = \frac{-47}{15}$$

$$\quad \quad +1\frac{1}{3} \quad \quad +1\frac{1}{3}$$

$$x = \frac{-47}{15} + 1\frac{1}{3}$$

$$-3\frac{2}{15} + 1\frac{1}{3}$$

$$3\frac{2}{15} - 1\frac{1}{3}$$

$$2\frac{2}{15} + \frac{15}{15}$$

$$-1\frac{5}{15}$$

$$\frac{2}{15} = \frac{2}{15}$$

$$\frac{1}{3} = \frac{5}{15}$$

Think:

$$3\frac{2}{15} - 1\frac{1}{3}$$

Know that I have opposite sign

$$2\frac{17}{15}$$

$$-1\frac{5}{15}$$

$$\frac{12}{15} \div 3 = -1\frac{4}{5}$$

$$\boxed{-1\frac{4}{5}}$$

$$4.) \quad -9\frac{5}{8} = n - 10\frac{15}{16}$$

$$\quad \quad +10\frac{15}{16} \quad \quad +10\frac{15}{16}$$

$$n = 10\frac{15}{16} - 9\frac{5}{8}$$

$$\frac{15}{16} = \frac{15}{16}$$

$$\frac{5}{8} = \frac{10}{16}$$

$$10\frac{15}{16} - 9\frac{10}{16}$$

$$10\frac{15}{16} - 9\frac{10}{16}$$

$$\boxed{1\frac{5}{16}}$$

$$\frac{2}{3} X = \frac{7}{8}$$

Think:

$$\frac{2x}{2} = \frac{8}{2}$$

$$x = 4$$

$$X = \frac{7}{8} \div \left(\frac{2}{3}\right)$$

Keep change flip

$$\frac{7}{8} * \frac{3}{2} = \frac{21}{16}$$

Multiply by inverse

$$\frac{3}{2} * \frac{2}{3} X = \frac{7}{8} * \frac{3}{2}$$

$$X = \frac{21}{16}$$

$$1\frac{4}{5} X = \frac{7}{11}$$

$$1\frac{4}{5} = \frac{(1*5)+4}{5} = \frac{9}{5}$$

$$\frac{9}{5} X = \frac{7}{11} \cdot \frac{5}{9}$$

$$X = \frac{35}{99}$$

$$\frac{8}{1} \cdot \frac{1}{8} X = \frac{12}{17} \cdot \frac{8}{1}$$

$$\frac{X}{8} = \frac{12}{17}$$

$$X = \frac{96}{17}$$

$$\frac{\cancel{8}}{3} \cdot \frac{\cancel{8}}{8} X = 2 \frac{7}{8} \cdot \frac{5}{3}$$

$$2 \frac{7}{8} = \frac{(2 \cdot 8) + 7}{8} = \frac{16 + 7}{8} = \frac{23}{8}$$

$$X = 2 \frac{7}{8} * \frac{5}{3}$$

$$X = \frac{23}{8} * \frac{5}{3} = \boxed{\frac{115}{24}}$$