

TH-PA Pre-Algebra Week 25 3/23

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

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

$$x = -\frac{1}{9} - \frac{4}{3}$$

$$\frac{-1}{9} = \frac{-1}{9} \quad x = -\frac{1}{9} - \frac{12}{9}$$

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

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

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

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

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

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

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

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

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

$$a = \frac{-33}{8}$$

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

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

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

$$1\frac{1}{3} = \frac{4}{3} \quad x = \frac{-47}{15} + \frac{4}{3}$$

$$\frac{-47}{15} = \frac{-47}{15}$$

$$\frac{4}{3} \xrightarrow{\times 5} \frac{20}{15}$$

$$x = \frac{-47}{15} + \frac{20}{15}$$

$$\frac{-27}{15} \div 3 = \frac{-9}{5}$$

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

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

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

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

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

$$\frac{15}{16} - \frac{10}{16} = \frac{5}{16}$$

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

Think:

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

$$x = 4$$

Keep change flip!

$$X = \frac{7}{8} \div \left(\frac{2}{3}\right) \rightarrow \frac{7}{8} * \frac{3}{2} = \boxed{\frac{21}{16}}$$

Multiply by inverse

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

$$X = \frac{7}{8} \cdot \frac{3}{2} = \boxed{\frac{21}{16}}$$

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

$$X = \frac{12}{17} \cdot \frac{8}{1} = \boxed{\frac{96}{17}}$$

$$1 \frac{4}{5} X = \frac{7}{11} \cdot \frac{5}{9} \cdot \frac{9}{8} X = \frac{7}{11} \cdot \frac{5}{9}$$

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

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

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

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

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

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

$$8\frac{1}{4} = \frac{(8+4)+1}{4} = \frac{33}{4}$$

$$8\frac{1}{4} X = 6\frac{2}{3}$$

$$6\frac{2}{3} = \frac{(3 \cdot 6) + 2}{3} = \frac{20}{3}$$

$$\frac{4}{33} \cdot \frac{33}{4} X = 6\frac{2}{3} \cdot \frac{4}{33}$$

$$X = 6\frac{2}{3} \cdot \frac{4}{33}$$

$$X = \frac{20}{3} \cdot \frac{4}{33} = \frac{80}{99}$$