Date: 04.16.19

① $5x+3 = 8-2x$

$+2x \qquad +2x$

$7x+3 = 8$

$-3 \quad -3$

$\frac{7x}{7} = \frac{5}{7}$

$\therefore x = \boxed{5/7}$

Review

1-3 Word Problems:

① Percentages:

Ⓐ What is 30% of 45?

$\frac{is}{of} = \frac{\%}{100}$

$\frac{x}{45} = \frac{30}{100}$

$\Rightarrow x = \frac{30 \times 45^{9}}{\cancel{100}_{2}}$

$\therefore x = \frac{27}{2} = \boxed{13.5}$

(B) 432 is what percent of 1600?

$$\frac{432}{1600} = \frac{x}{100}$$

$$\Rightarrow x = \frac{432 \times 100}{1600}$$

$$\therefore x = \boxed{27}$$

(C) 70 is 40% of what number?

$$\frac{70}{x} \quad \frac{40}{100}$$

$$\Rightarrow 40x = 70 \times 100$$

$$\Rightarrow x = \frac{70 \times 100}{40}$$

$$\therefore x = \boxed{175}$$

II. loans ; (Finance)

*2 (I) student loans

*3 (II) ~~Credit~~ cards

*1 (III) Mortgages

(IV) Med. loan

(V) Car loan

Book problem 51.

32% of AI is 15,125.50

$$\frac{15,125.50}{X} \rightarrow \frac{32}{100}$$

$$\Rightarrow X = \frac{15,125.50 \times 100}{32}$$

$$\therefore X = \boxed{47,267.19}$$

Book problem 52.

16% of MI is 500

$$\frac{500}{X} = \frac{16}{100}$$

$$\Rightarrow 16X = 500 \times 100$$

$$\Rightarrow X = \frac{500 \times 100}{16}$$

$$\therefore X = \boxed{3125}$$

III. Course Grade

$$\frac{G_1 + G_2 + G_3 + G_4}{4} = \text{B Avg}$$

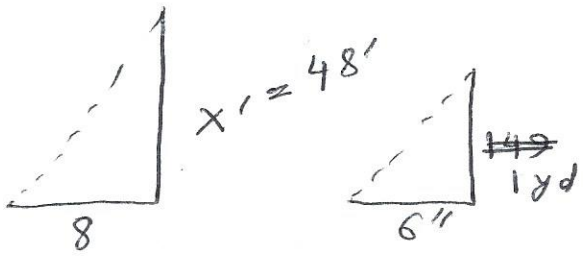
$$\Rightarrow \frac{87 + 92 + 84 + G_4}{4} = 90$$

$$\Rightarrow 263 + G_4 = 360$$

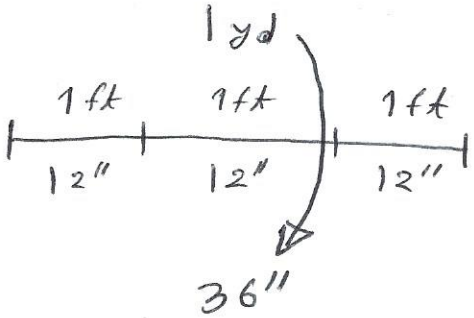
$$\Rightarrow G_4 = 360 - 263$$

$$\therefore G_4 = \boxed{97}$$

IV. Measuring



$$\frac{\text{obj 1}}{\text{shadow 1}} = \frac{\text{obj 2}}{\text{shadow 2}}$$



$$\frac{x'}{8'} = \frac{1\,yd}{6''}$$

$$\Rightarrow \frac{x''}{36''} = \frac{1\,yd}{6''}$$

$$\Rightarrow x'' = \quad$$

$$\frac{x'}{8'} = \frac{36''}{6''}$$

$$\Rightarrow \frac{x}{8} = \frac{\overset{6}{\cancel{36}}}{\cancel{6}}$$

$$\Rightarrow x = 6 \times 8$$

$$\therefore x = \boxed{48'}$$