Mr. Bregar weighs 180 pounds and can bench press 275. Brandon's weight and strength are proportional to Mr. Bregar's. If Brandon weighs 155 pounds, how much can he bench press?

ratios & proportions can help solve this!

$$\frac{275}{180} \cdot x \cdot \frac{180}{275} = \frac{155}{x} \cdot x \cdot \frac{275}{180}$$

$$x = \frac{155 \cdot 275}{180} = 236.8$$

Worksheet 8A

① $\frac{2}{3}x + \frac{3}{4} = \frac{1 \cdot 2}{2 \cdot 2} + \frac{-3}{4}$

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

$\frac{3}{2} \cdot \frac{2}{3}x = \frac{-1}{4} \cdot \frac{3}{2}$

$x = \frac{-3}{8}$

$\frac{2}{3}\left(\frac{-3}{8}\right) + \frac{3}{4} = \frac{1}{2}$

$24\left(\frac{-6}{24} + \frac{3}{4}\right) = \frac{1}{2} \cdot 24$

$\frac{-144}{24} + \frac{72}{4} = \frac{24}{2}$

$-6 + 18 = 12$

$12 = 12$ ✓

⑥ $\frac{3}{2}(a-3) = \frac{1}{4}(5+6a)$

$-\frac{3}{2}a + \frac{3}{2}a - \frac{9}{2} = \frac{5}{4} + \frac{6a}{4_2} - \frac{3a}{2}$

$-\frac{9}{2} = \frac{5}{4}$ no solution

$\times \frac{10}{3}$

$$⑧\left(2-\frac{3}{5}(3-x)\right)=\left[\frac{3}{10}(2x+\frac{2}{3})\right]\frac{10}{3}$$

$$\frac{20}{3}-2(3-x)=2x+\frac{2}{3}$$

$$\frac{20}{3}-6+2x=2x+\frac{2}{3}$$
$$-2x \quad -2x$$

$$3\left(\frac{20}{3}-6\right)=\left(\frac{2}{3}\right)3$$

$$20-18=2$$
$$2=2$$

true for all x

$x=2$

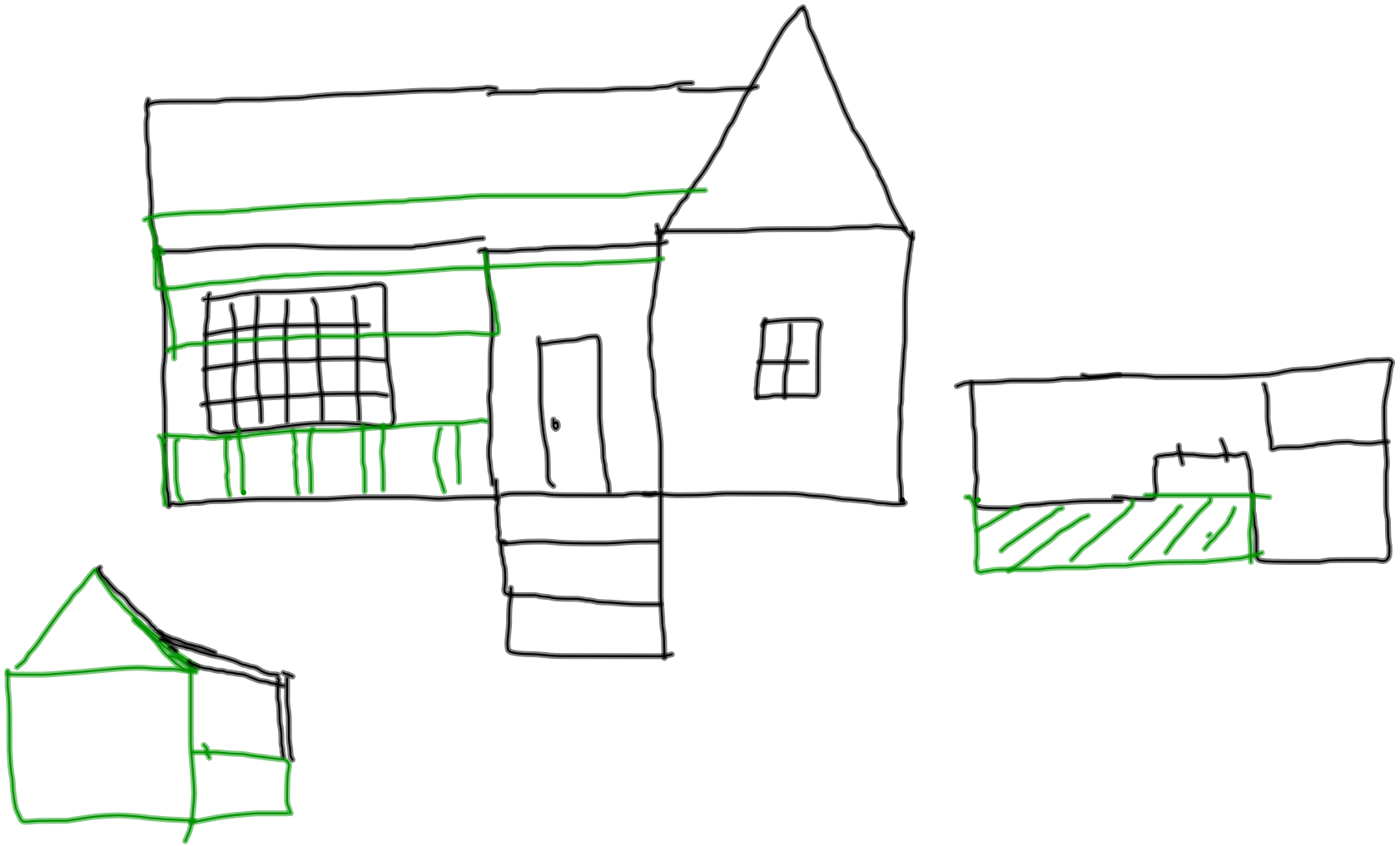
$$2-\frac{3}{5}(3-2)=\frac{3}{10}(2\cdot 2+\frac{2}{3})$$
$$1$$

$$2-\frac{3}{5}=\frac{3}{10}(4+\frac{2}{3})$$

$$\frac{10}{5}-\frac{3}{5}=\frac{3}{10}(\frac{12}{3}+\frac{2}{3})$$

$$\frac{7}{5}=\frac{\cancel{3}}{10}\cdot\frac{14}{\cancel{3}}=\frac{7}{5}$$

✓



→ H/W grade for 9/23 = completion + accuracy

→ Quiz tomorrow!

$\frac{5}{11}c+3$ $\quad$ $\frac{-4}{7}c-\frac{2}{3}$

$$\textcircled{7}\left(\frac{5}{11}c+3\right)=\left(\frac{-4}{7}c-\frac{2}{3}\right)11$$

$$7(5c+33)=\left(\frac{-44}{7}c-\frac{22}{3}\right)7$$

$$3(35c+231)=\left(-44c-\frac{154}{3}\right)3$$

$$-693+132c+105c+693=-132c-154+132c-693$$

$$\frac{237c}{237}=\frac{-847}{237} \qquad c=\frac{-847}{237}$$

$$\frac{5}{11}c+3$$

$$\frac{5}{11}\left(\frac{-847}{237}\right)+3$$

$$\frac{-4235}{2607}+\frac{7821}{2607}=\frac{3586}{2607}=\frac{326}{237}$$

$$\frac{-4}{7}c-\frac{2}{3}$$

$$\frac{-4}{7}\left(\frac{-847}{237}\right)+\frac{-2}{3}$$

$\Big\}$? $\_c+\_=\_c+\_$

$$\frac{3388}{1659}+\frac{-1106}{1659}=\frac{2282}{1659}=\frac{326}{237}$$

$$\frac{5}{11}c + 3 = \frac{-4}{7}c - \frac{2}{3}$$

p. 165 26–38 (even), 46, 50, 52a

p. 171 6–27 (every 3rd), 34, 36, 39, 40