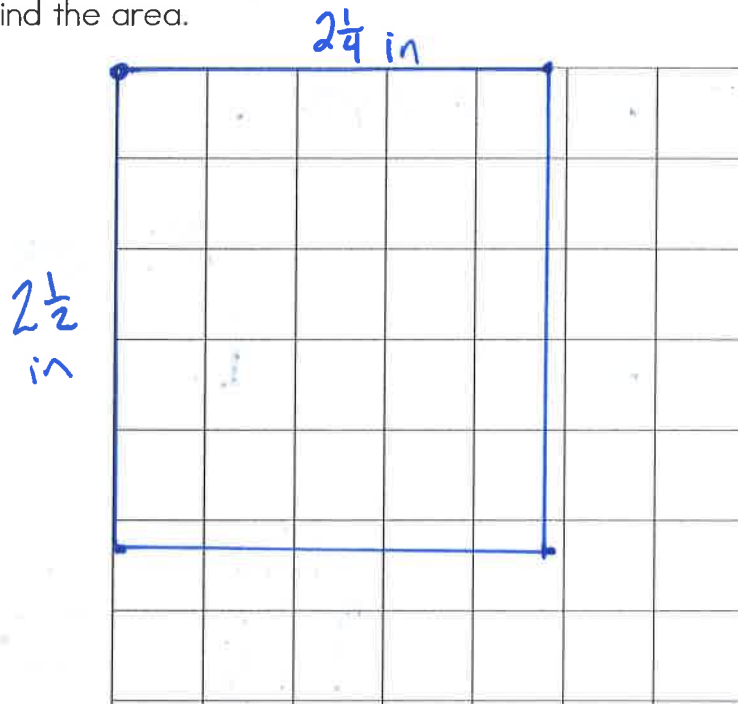


Name: Ms. Beck

Date: 4.11.19

End of Module 5 Review Sheet

1. Use your ruler to draw a rectangle that measures $2\frac{1}{4}$ by $2\frac{1}{2}$ inches, and then find the area.



$$A = l \times w$$

$$A = 2\frac{1}{4} \times 2\frac{1}{2}$$

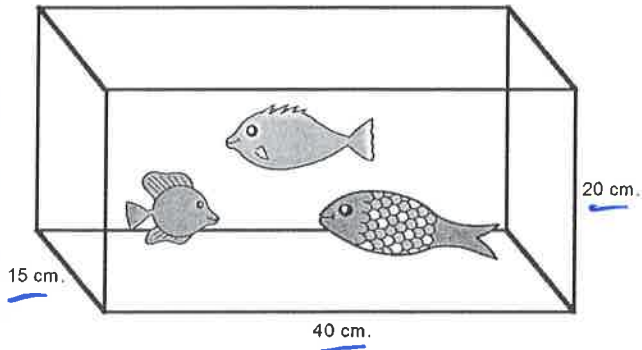
$$2 + \frac{1}{4}$$

2	4	$\frac{2}{4} = \frac{4}{8}$
$\frac{1}{2}$	$\frac{2}{2} = 1$	$\frac{1}{8}$

$$4 + 1 + \frac{4}{8} + \frac{1}{8}$$

$$5\frac{5}{8} \text{ in}^2$$

3. A large rectangular fish tank has the dimensions shown below. The tank is filled with water to a depth of 12 cm. When an additional 7.5 liters of water is poured into the fish tank, some of the water overflows. How many liters of water overflow the tank? Use words, pictures, and numbers to explain your answer. (Hint: $1 \text{ cm}^3 = 1 \text{ mL}$.)

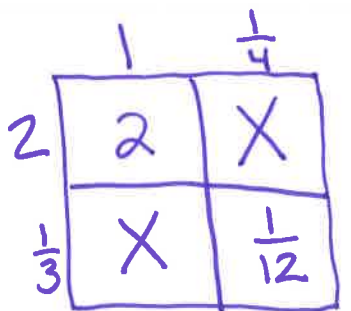


- 4) Jeffrey says that a $1\frac{1}{4}$ feet by $2\frac{1}{3}$ feet rectangle has a section that is 1 inches x 2 inches and a section that is $\frac{1}{4}$ feet x $\frac{1}{3}$ feet. That means that the total area is just the sum of these two smaller areas, or $2\frac{1}{12} \text{ ft}^2$. Why is Jeffrey incorrect? Use an area model to explain your thinking. Then, give the correct area of the rectangle.

$$1\frac{1}{4} \times 2\frac{1}{3}$$

$$(1 \times 2) + (\frac{1}{4} \times \frac{1}{3})$$

$$2 + \frac{1}{12} = 2\frac{1}{12}$$



$$2\frac{1}{12} \text{ ft}^2$$

Incorrect

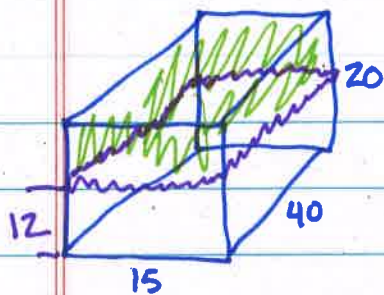
$$1\frac{1}{4} \times 2\frac{1}{3}$$

	1	$\frac{1}{4}$
2	2	$\frac{2}{4} = \frac{6}{12}$
$\frac{1}{3}$	$\frac{1}{3} = \frac{4}{12}$	$\frac{1}{12}$

$$2 + \frac{6}{12} + \frac{4}{12} + \frac{1}{12}$$

$$2\frac{11}{12} \text{ ft}^2$$

Correct



Volume of the Tank = $V = l \times w \times h$.

$$V = 40 \times 15 \times 20$$

$$V = 800 \times 15$$

$$V = 12,000 \text{ cm}^3$$

$$\begin{array}{r} 4 \\ 15 \\ \times 800 \\ \hline 12000 \end{array}$$

Volume of Water = $V = l \times w \times h$

$$V = 40 \times 15 \times 12$$

$$V = 600 \times 12$$

$$V = 7200$$

Room left in container

$$\begin{array}{r} 12000 \\ - 7200 \\ \hline 4800 \end{array}$$

Conversion

$$4800 \text{ mL} = 4.8 \text{ L}$$

E $4800 \times 1 \text{ mL}$

C $4800 \times \frac{1}{1000} \text{ L}$

A $\frac{4800}{1000}$

$$\begin{array}{r} 4.8 \\ 10 \overline{)48.0} \\ \underline{40} \\ 80 \\ \underline{80} \\ 0 \end{array}$$

Solve:

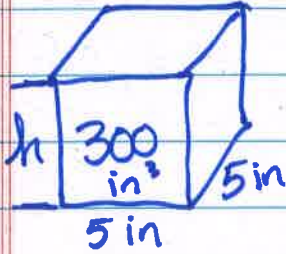
$$\begin{array}{r} 6 \\ 4.5 \\ - 4.8 \\ \hline 2.7 \text{ L} \end{array}$$

2.7 L of water overflow

#5

$$V = l \times w \times h$$

Box #1



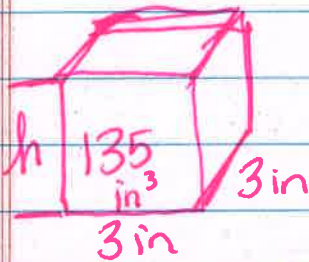
$$300 = 5 \times 5 \times h$$

$$300 = 25 \times h$$

$$12 = h$$

$$\begin{array}{r} 12 \\ 25 \overline{) 300} \\ \underline{25} \\ 50 \\ \underline{-50} \\ 0 \end{array}$$

Box #2



$$135 = 3 \times 3 \times h$$

$$135 = 9 \times h$$

$$15 = h$$

$$\begin{array}{r} 15 \\ 9 \overline{) 135} \\ \underline{9} \\ 45 \\ \underline{-45} \\ 0 \end{array}$$

Box #2 is taller because
15 in is taller than 12 inches