Math 12 – Workshop #1

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1. Adding a pair of parenthesis can change the outcome of a mathematical computation. For instance the following

$$3 + 2 \cdot 4 - 5$$

is equal to 6. However

$$(3 + 2) \cdot 4 - 5$$

is equal to 15, and

$$3 + 2 \cdot (4 - 5)$$

is different still!

How many different numbers can we get by adding one pair of parenthesis to the following expression

$$4 \ + \ 2 \ \cdot \ 3 \ + \ 5 \ \cdot \ 7$$

2. Without a calculator, evaluate

(a) $8 - (-8)$

(b) $\frac{1}{4} - \frac{1}{2}$

(c) $\frac{5}{3} + \left(-\frac{3}{5}\right)$

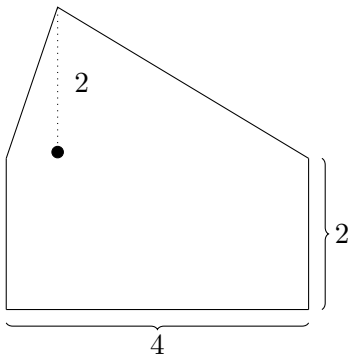
(d) $\frac{1}{3} - \left(-\frac{2}{4}\right)$

(e) $\frac{4}{7} \cdot \left(-\frac{1}{9}\right)$

(f) $\frac{1}{3} \div \left(\frac{2}{4}\right)$

(g) $\frac{1}{2} + \frac{1}{3} + \frac{1}{12} + \frac{1}{20} + \frac{1}{30}$

3. Find the area of the following figure:



4. Write a mathematical equation that represents the phrase "Seven is three less than two times x "

5. Write a mathematical equation that represents the phrase "x is half of one more than y "