

Math 466: Stuff you need to know by heart

Homework due next class, include the corrections found online.

❖ Indicate the definition for each type of numbers

$$\mathbb{R} \begin{cases} \mathbb{Z} \\ \mathbb{N} \\ \mathbb{Q} \\ \mathbb{Q}' \\ \mathbb{W} \end{cases}$$

❖ Fractions: Calculate each operation

$$\frac{1}{2} + \frac{3}{9} =$$

$$\frac{1}{2} - \frac{3}{6} =$$

$$\frac{16}{25} \times \frac{100}{36} =$$

$$\frac{15}{27} \div \frac{25}{9} =$$

$$3\left(-\frac{6}{7}x\right) =$$

$$\frac{4}{5}\left(\frac{3}{2}x\right) =$$

$$\frac{3/2}{2/9} =$$

❖ Evaluate: Order of Operations with Fractions

$$11. \left(-\frac{4}{7}\right) \div \left(-\frac{12}{7}\right) - \frac{1}{3} =$$

$$12. 4\frac{1}{2} \times \left(-\frac{2}{3}\right) + \frac{7}{8} =$$

$$13. \frac{4}{9} + \frac{-3}{4} \times \frac{2}{9} \div \frac{3}{5} =$$

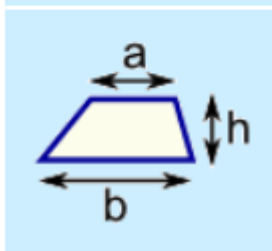
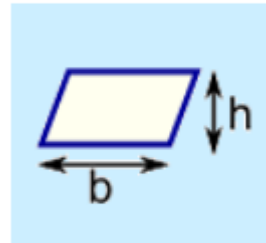
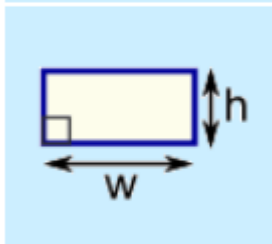
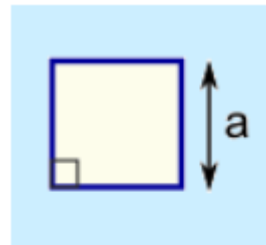
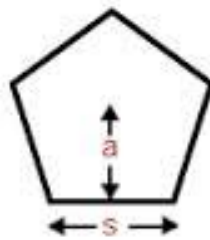
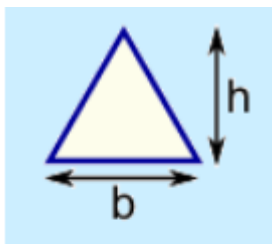
$$14. \frac{1}{3} \times \frac{5}{8} + \frac{1}{4} \times \left(\frac{-1}{2}\right)$$

❖ Solve

$$\frac{2}{3}x + 7 = 4$$

$$\frac{3}{4}x = \frac{6}{11}$$

❖ Write the formula for the area of the following 2D Shapes



❖ Calculate 528 divided by 32 by **Long Division**

$$32 \overline{) 528}$$

❖ Solve each equation and write your solution in proper notation.

Case 1: $2x - 8 = 0$

Case 2: $2x + 3 = -3x + 5x - 6$

Case 3: $3x - 8 = 2x + 1x - 5 - 3$

❖ Understand the different notations: $f(x)$ can be written as $s(x)$ which can be written as $h(t)$.

❖ Understand how to calculate and properly calculate $f(x)$ when $x = 5$.

Regular Math	Enriched Math
$y = ax + b$	$f(x) = ax + b$
$y = 2x - 3$	$f(x) = 2x - 3$
$y = 2(5) - 3$	$f(5) = 2(5) - 3$

❖ Find the time a ball takes to reach 19 m if the height (in meters) of a ball as a function of time (in sec) follows the equation $h(t) = 2x^2 + 1$.

❖ Explain the notation $a > 0$