

Name: \_\_\_\_\_  
Date: \_\_\_\_\_  
Class: \_\_\_\_\_

Algebra  
Unit 1  
HW 1-3

- 1) If you were going to add  $\frac{3}{7}$  and  $\frac{1}{3}$  what would you need to do first and why?

You need a common denominator

- 2) Complete the problem in #1 showing all necessary steps (meaning don't just put it in your calculator).

$$\begin{aligned} \text{C.D.} &= 21 \\ &3 \cdot \frac{3}{7} + \frac{1 \cdot 7}{3 \cdot 7} \\ &\frac{9}{21} + \frac{7}{21} = \left( \frac{16}{21} \right) \end{aligned}$$

- 3) If you were going to add  $5\frac{2}{3}$  and  $6\frac{1}{4}$  using your calculator with the mixed numbers, how would you properly enter it into your calculator

$$5 + (2/3) + 6 + (1/4)$$

- 4) What would be a reasonable approximation of an answer to the addition in #3?

Both round to 6 so the ans ~~should~~  
should be approx 12

- 5) Convert  $5\frac{2}{3}$  into an improper fraction showing all necessary steps.

$$\frac{3 \cdot 5}{3 \cdot 1} + \frac{2}{3} \rightarrow \frac{15}{3} + \frac{2}{3} = \boxed{\frac{17}{3}}$$

- 6) Add the following using your calculator, show your answer as both a mixed number, and as an improper fraction:

$$\frac{2}{3} + \frac{4}{5} + \frac{5}{6} + \frac{2}{7} + \frac{5}{8}$$

$$\frac{899}{280} \text{ or } 3\frac{59}{280}$$

- 7) Which of the following results in a greater value?

a)  $\frac{4}{5} + \frac{5}{9} + \frac{2}{3} + \frac{10}{11}$

$$\approx 2.9313...$$

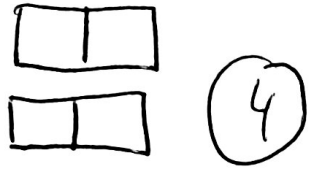
b)  $\left| 5 - 3 - \frac{5}{2} - \frac{49}{20} \right|$

$$1 - 2.951$$

$$2.95$$

divide into 1/2's

8) Using a picture, confirm that  $2 \div \frac{1}{2} = 4$



9) What is the reciprocal of  $\frac{1}{3}$ ?



10) Using a reciprocal, show why  $\frac{2}{5} \cdot \frac{25}{16} = \frac{5}{8}$

$$\frac{2}{5} \cdot \frac{25}{16} = \frac{50}{80} = \frac{50}{80} = \left(\frac{5}{8}\right)$$
$$\frac{16}{25} \cdot \frac{25}{16} = \frac{400}{400} = 1$$