

8:55  
9:05

**Test 1**  
Dusty Wilson  
Math 085 (no calculators)

Name: key.

*When we ask advice, we are usually looking for an accomplice.*

Joseph-Louis Lagrange (1736 - 1813)  
Italian or French mathematician

**No work = no credit**

Warm-ups (1 pt each):  $7 \times 8 = \underline{56}$        $1 + 2 \times 3 = \underline{7}$        $-1^2 = \underline{-1}$

1.) (2 pts) Fill in the missing numerator that makes the fractions equivalent:  $\frac{7}{12} = \frac{?}{36}$

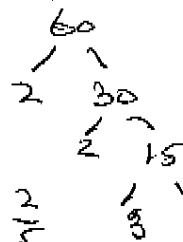
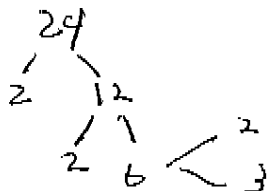
$7(3) = 21$

Solution:  $\frac{7}{12} = \frac{21}{36}$

2.) (2 pts) Circle the fraction that is equivalent to  $\frac{5}{8}$ .

$\left(\frac{15}{24}\right)$        $\frac{10}{13}$        $\frac{4}{7}$

3.) (2 pts) Find the greatest common factor (GCF) of 24 and 60



GCF =  $2 \times 2 \times 3$

GCF: 12

4.) (2 pts) Simplify to lowest terms:  $\frac{24}{60} = \frac{2}{5}$

Solution:  $\frac{2}{5}$

5.) (2 pts) A pancake recipe calls for  $2\frac{1}{4}$  cups of mix. Write  $2\frac{1}{4}$  as an improper fraction.

Solution:  $\frac{9}{4}$

6.) (2 pts) Rewrite the fractions  $\frac{3}{5}$  and  $\frac{7}{9}$  with their least common denominator (LCD), 45.

$\frac{3}{5} \times \frac{9}{9} = \frac{27}{45}$  ;  $\frac{7}{9} \cdot \frac{5}{5} = \frac{35}{45}$

$\frac{3}{5} = \frac{27}{45}$  and  $\frac{7}{9} = \frac{35}{45}$

7.) (4 pts) Do the multiplication  $\frac{2}{3} \times \frac{18}{23}$ . Write the answer in lowest terms.

$$\frac{36}{69} = \frac{12}{23}$$

Solution:  $\frac{12}{23}$

8.) (4 pts) Do the division  $3\frac{2}{5} \div \frac{7}{10}$ . Write the answer in lowest terms.

$$\begin{aligned} \frac{17}{5} \div \frac{7}{10} &= \frac{17}{5} \times \frac{10}{7} \\ &= \frac{170}{35} \\ &= 34/7 \end{aligned}$$

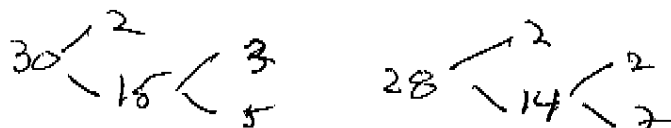
Solution:  $34/7$

9.) (2 pts) Find the value of  $z$  in the equation:  $\frac{5}{9} \times z = 15$

$$z = 15 \cdot \frac{9}{5} = 3 \cdot 9 = 27$$

Solution:  $27 = z$

10.) (4 pts) Find the least common denominator of the fractions  $\frac{7}{30}$  and  $\frac{11}{28}$ .



$$LCD = 2 \times 2 \times 3 \times 5 \times 7$$

$$\begin{array}{r} 35 \\ \times 12 \\ \hline 70 \\ 35 \\ \hline 420 \end{array} \quad LCD: \underline{420}$$

11.) (2 pts) Choose the fraction with the least value:  $\frac{7}{11}$  or  $\frac{8}{13}$

$$7(13) = 91$$

$$8(11) = 88$$

Solution:  $7/11$

12.) (2 pts) Find:  $3\frac{5}{7} - 2\frac{6}{7}$

$$\frac{26}{7} - \frac{20}{7}$$

Solution:  $6/7$



20.) (2 pts) Write 0.28 as a fraction in lowest terms.

$$\frac{28}{100} = \frac{7}{25}$$

Solution:  $\frac{7}{25}$

21.) (2 pts) Write  $\frac{8}{25}$  as a decimal number

Solution: 0.32

22.) (2 pts) Do this addition:  $1.23 + 4.5 + 6.78$

$$\begin{array}{r} 1.23 \\ 4.50 \\ + 6.78 \\ \hline 12.51 \end{array}$$

Solution: 12.51

23.) (2 pts) Do this multiplication  $8.5 \times 0.42$

$$\begin{array}{r} 8.5 \\ 0.42 \\ \hline 170 \\ 340 \\ \hline 3.570 \end{array}$$

Solution: 3.57

24.) (2 pts) Find the value of  $x$  in  $1.3x = 6.11$

$$\begin{array}{r} x = 6.11 \div 1.3 \\ \hline 1.3 \overline{) 6.11} \\ \underline{-52} \phantom{0} \\ 91 \\ \underline{-91} \\ 0 \end{array}$$

Solution: 4.7

25.) (2 pts) Use the order of operations to evaluate the expression:  $19 - 2 \times [19 - 3 \times (5 - 1)]$

$$\begin{aligned} &= 19 - 2 \times [19 - 3 \times (4)] \\ &= 19 - 2 \times [19 - 12] \\ &= 19 - 2 \times 7 \\ &= 19 - 14 \\ &= 5 \end{aligned}$$

Solution: 5