

Practice Second Exam (Fall 2009 Math 020)

NAME _____
CRN # _____

I. Fractions : Basic Skills/Concepts

1. **Find the LCM** (least common multiple) of : 10 , 15 and 35

2. **Convert** the following improper fraction into a mixed number:

$$\frac{25}{16}$$

3. **Convert** the following mixed number into its improper fractional equivalent:

$$15\frac{1}{8}$$

4. **Find the equivalent fraction** (raise to higher terms) to:

$$\frac{7}{11} = \frac{\quad}{55}$$

5. **Reduce** ; that is write the following fraction in (simplest) lowest terms:

$$\frac{8}{60}$$

II. Fraction Addition

6. **Add** and then reduce and/or convert to mixed number, if necessary:

$$\frac{3}{4} + \frac{1}{4} + \frac{5}{4}$$

7. **Add** and then reduce and/or convert to mixed number, if necessary:

$$\frac{5}{12} + \frac{5}{16}$$

8. **Add** and then reduce and/or convert to mixed number, if necessary:

$$\frac{2}{3} + \frac{3}{5} + \frac{1}{2}$$

9. **Add** and then reduce and/or convert to mixed number, if necessary:

$$8\frac{7}{10} + 6\frac{11}{15}$$

10. A family with an income of \$40,000 spends :
 $\frac{1}{3}$ of its income on housing , $\frac{1}{6}$ of its income on transportation , and $\frac{1}{4}$ of its income on food.
Find the total fractional amount of the family's income that is spent on these three items.
Your answer should be a reduced fraction, and use a summary statement to state your answer.

III. Fraction Subtraction

11. **Subtract** and then reduce and/or convert to mixed number, if necessary:

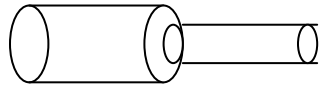
$$\frac{5}{9} - \frac{7}{15}$$

12. **Subtract** and then reduce and/or convert to mixed number, if necessary:

$$5 - 3\frac{11}{16}$$

13.

$$\leftarrow 12\frac{3}{8}'' \rightarrow$$



$$\leftarrow 6\frac{7}{8}'' \times \text{---} ? \rightarrow$$

Find the length of the missing piece, and use a summary statement to state your answer, and remember to include the correct units.

IV. Fraction Multiplication

14. **Multiply** the following fractions and reduce and/or convert to a mixed number, if applicable:

$$\left(\frac{3}{5}\right)\left(\frac{3}{10}\right)$$

15. **Multiply** the following fractions and reduce and/or convert to a mixed number, if applicable:

$$\left(3\frac{2}{3}\right)\left(\frac{1}{5}\right)$$

16. **Multiply** the following fractions and reduce and/or convert to a mixed number, if applicable:

$$\left(3\frac{1}{7}\right)\left(2\frac{1}{8}\right)$$

17. In problem # 10 , you were asked to find the fractional part of the income that was spent within the given three areas. Using multiplication and the answer found in # 10, **find the dollar (\$) amount** that is spent within these three areas (housing transportation, and food).
Use a summary statement to state your answer.

V. Fraction Division

18. **Divide** the following fractions and reduce and/or convert to a mixed number, if applicable:

$$6\frac{2}{5} \div 4$$

19. **Divide** the following fractions and reduce and/or convert to a mixed number, if applicable:

$$\frac{2}{11} \div \frac{4}{77}$$

VI. Ordering fractions

20. **Place the correct symbol** , < , = , or > , between the given fractions, **to order** them.
You must show the correct work to justify this sign.

$$\frac{7}{24} \quad \frac{11}{30}$$