

MAT 0002 Test #2 Fall 2000

BE SURE TO CIRCLE YOUR ANSWERS!!!

Name _____

1) Convert $2\frac{1}{3}$ to an Improper Fraction

2) Convert $8\frac{7}{12}$ to an Improper Fraction

3) Convert $\frac{23}{5}$ to a Mixed Number

4) Convert $\frac{67}{17}$ to a Mixed Number

Determine whether the following numbers are Prime or Composite. Write PRIME or COMPOSITE

5) 15 _____

6) 31 _____

7) 51 _____

8) List ALL of the Factors of 18

9) List ALL of the Factors of 72

Write the Prime Factorization of the following numbers. Use Exponents when you have repeated factors.

10) 12

11) 36

12) 240

13) 945

Find the Least Common Multiple (LCM) of the following numbers

14) 12 and 15

15) 30, 36 and 50

16) 4, 6, 10 and 15

Compare the following fractions. Insert a $<$, $=$ or $>$ sign between the numbers.

17) $\frac{1}{2}$ $\frac{2}{3}$

18) $\frac{18}{27}$ $\frac{14}{21}$

19) $\frac{5}{8}$ $\frac{6}{10}$

Simplify the following fractions completely.

20) $\frac{36}{42}$

21) $\frac{60}{36}$

22) $\frac{66}{308}$

Evaluate the following fractions

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

24) $\left(\frac{2}{3}\right)^4$

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

PERFORM THE INDICATED OPERATIONS. SIMPLIFY COMPLETELY WHEN POSSIBLE.

26) $\frac{14}{21} \cdot \frac{15}{16}$

27) $\frac{3}{14} + \frac{4}{14}$

28) $\frac{11}{12} - \frac{5}{18}$

29) $\frac{8}{9} \div \frac{3}{4}$

30) $\frac{2}{3} + \frac{1}{6}$

31) $\frac{9}{10} \cdot \frac{10}{9}$

32) $\frac{2}{3} \div 4$

33) $\frac{7}{8} - \frac{1}{8}$

34) $2\frac{1}{5} \cdot 3\frac{1}{2}$

35) $4\frac{5}{6} + 2\frac{1}{8}$

36) $8\frac{2}{7} \div 3\frac{1}{7}$

37) $8\frac{4}{5} - 5\frac{2}{3}$

38) $\frac{2}{3} \cdot \frac{1}{2}$

39) $6 \cdot 3\frac{1}{3}$

40) $10 - 8\frac{1}{5}$

41) $4\frac{1}{3} - 1\frac{3}{4}$

42) $165\frac{1}{2} + 258\frac{3}{4}$

43) $\frac{1}{5} + \frac{1}{3} \cdot \frac{1}{4}$

44) $\left(\frac{2}{3} - \frac{5}{9}\right)^2$

45) $\frac{5}{6} \div \frac{1}{3} + \frac{1}{4}$

46) Suppose that the Diameter of a pipe is $3\frac{1}{2}$ inches. Find the Radius of the pipe.

47) Suppose that each piece of OSB board is $\frac{7}{16}$ inches thick. How high is a stack of 40 boards?

48 & 49) Suppose that the length of a rectangle is $12\frac{3}{4}$ feet and the width is $6\frac{1}{2}$ feet.

48) Find the Perimeter of the rectangle.

49) Find the Area of the above rectangle.

50) A circle has a radius of $8\frac{2}{5}$ miles. Find the Circumference of the circle.

Use $C = \pi d$ or $C = 2\pi r$ And use $\pi = \frac{22}{7}$

Bonus: Evaluate 2^{3^2}