



# Steamfitters Local 602

## Math Pretest Review

## Addition #2

$$\begin{array}{r} \underline{22} \\ 375 \\ 948 \\ 22 \\ + \underline{659} \\ 2004 \end{array}$$

## Subtraction #4

$$\begin{array}{r} 15 \\ 5 \cancel{6} \cancel{5} 8 \\ - \underline{395} \\ 263 \end{array}$$

# Multiplication of Decimal

- Do not move the decimal
- Count the number of decimal places in each number.
- Add up the total number of decimal places
- Count off this number in the product and put the decimal there.

# Multiplication #6

$$\begin{array}{r} 627 \\ \cancel{1} \quad \cancel{1} \\ 37.28 \\ \times \quad .92 \\ \hline 17456 \\ 33552 \\ \hline 34.2976 \end{array}$$

# Division of Decimals #10

$$\begin{array}{r} 11.02 \\ 220 \overline{) 2425.00} \\ \underline{220} \phantom{00} \\ 225 \phantom{00} \\ \underline{220} \phantom{00} \\ 500 \phantom{00} \\ \underline{440} \phantom{00} \end{array}$$

# Division of Feet and Inches # 11

$$\begin{array}{r} 4' \quad 4'' \\ 8 \overline{) 34 \text{ ft. } 8 \text{ in.}} \\ \underline{32'} \\ 2' \quad 8'' = \frac{32''}{00} \end{array}$$

Division of Gals.  
and Quarts #12

1 gallon = 4 quarts

$$\begin{array}{r} 3 \text{ gals.} \quad 5 \text{ qts.} \\ 3 \overline{) 10 \text{ gals.} \quad 11 \text{ qts.}} \\ \underline{9} \end{array}$$

$$1 \text{ gal.} \quad 11 \text{ qts} = 15 \text{ qts.}$$

$$\underline{15 \text{ qts.}}$$

$$00$$



## Word Problem #13

At \$8.07 per hour, how much money will you earn in 40 hours

$$\begin{array}{r} 2 \\ \$8.07 \\ \times 40 \\ \hline 000 \\ 3228 \\ \hline \$322.80 \end{array}$$

## Word Problem #14

One meter is equal to 3.28 feet. How many feet are there in 30 meters?

$$\begin{array}{r} \phantom{0}2 \\ 3.28' \\ \times 30 \\ \hline 000 \\ 984 \\ \hline 98.40 \text{ feet} \end{array}$$

## Word Problem #15

If one kilometer is equal to .6 miles, how many kilometers would you have traveled in going 42 miles?

$$\begin{array}{r} 70. \\ \hline 6. \overline{) 42.0} \end{array}$$

,

A British Thermal Unit (BTU) is the amount of heat required to raise 1 pound of water one degree Fahrenheit. How many BTU's would be required to raise 45 pounds of water 18 degrees Fahrenheit?

$$\begin{array}{r} 4 \\ 45 \\ \times 18 \\ \hline 360 \\ 45 \\ \hline 810 \text{ BTU's} \end{array}$$

## Word Problem #17

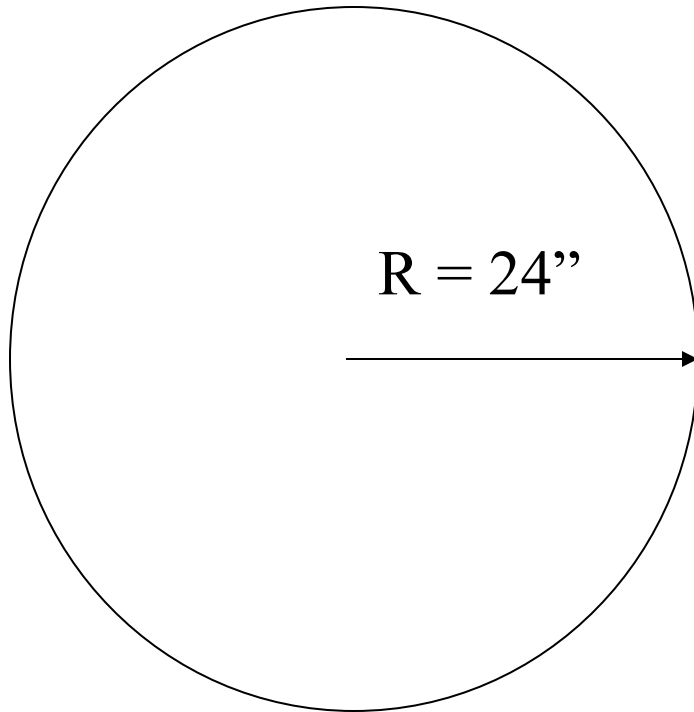
A column of water 2.31 feet high exerts a pressure of 1 pound per square inch. How much pressure does a column of water 47 feet high exert

$$\begin{array}{r} 20.34 \\ \hline 2.31 \overline{) 47.00} \end{array}$$

## Word Problem #18

In figure #1, what is the circumference of the circle?

$$\pi = 3.14$$



$$3.14 \times 48 = 150.72$$

## Word Problem #19

What is the area of figure #1?

$$\text{Area} = R^2 \times \pi$$

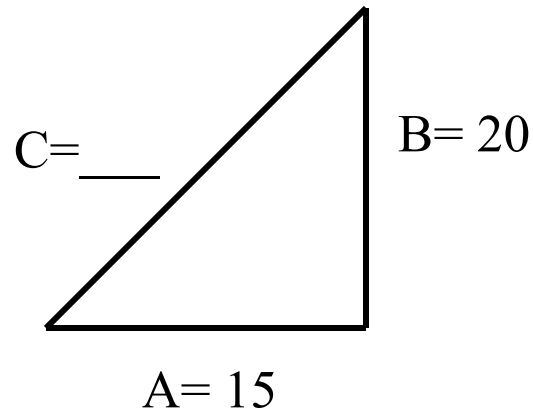
$$\pi \times 24^2 =$$

$$3.14 \times 576 = 1808.64$$

## Word Problem #20

Using the formula  $C^2 = A^2 + B^2$ , what is the length of side C in figure # 2

Figure #2



$$15^2 + 20^2 = C^2$$

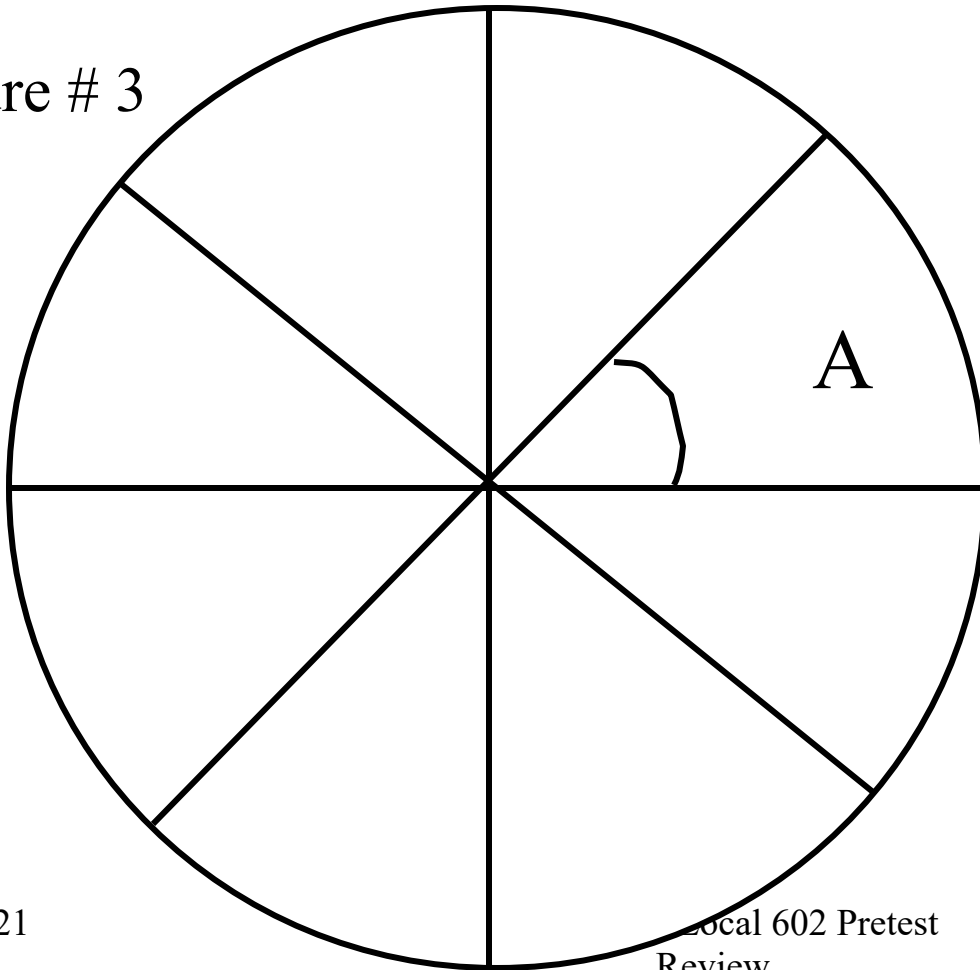
$$225 + 400 = \sqrt{625}$$



## Word Problem #21

The circle (figure #3) is divided into 8 equal parts. What is the angle of the section marked A?

Figure # 3



$45^{\circ}$

## Word Problem # 22

Find the value of “x” in the equation

$$5x + 20 = 4x + 30$$

$$5x - 4x = 30 - 20$$

$$1x = 10$$

## Addition of Fraction #24

$$\begin{array}{r} 6 \quad 5/32 \quad 5/32 \\ + 7 \quad 1/8 \quad 4/32 \\ \hline 13 \quad 9/32 \end{array}$$

# Subtraction of Fraction #27

$$\begin{array}{r} 18 \quad \cancel{19} \quad 32/32 \\ - \quad 5 \quad 5/32 \\ \hline 13 \quad 27/32 \end{array}$$

## Multiplication of Fraction #29

$$4 \frac{3}{4} \times \frac{1}{2} =$$

$$\frac{19}{4} \times \frac{1}{2} = \frac{19}{8} = 2 \frac{3}{8}$$

# Division of Fraction # 31

$$\frac{3}{4} \div \frac{1}{4}$$

$$\frac{3}{4} \times \frac{4}{1} = \frac{12}{4} = 3$$

# Addition of Decimals

$$\begin{array}{r} \phantom{+} 1 \phantom{1} 11 \\ 4.2015 \\ \phantom{+} .6280 \\ + 14.5215 \\ \hline 19.3510 \end{array}$$





## Express as a Percentage #41

Move the decimal 2 places to the right

$$.25 = \underline{25} \%$$

$$\begin{array}{c} 25. = 25 \\ \longrightarrow \end{array}$$

Express in Decimal Form # 42b

Move the decimal 2 places to the left

$$225 \% = \underline{2.25}$$

$$225. = 2.25$$

←

Find the Value of: #43b

Convert the % to a decimal

Multiply the two numbers

$$.25 \% \text{ of } 300 =$$

$$\overset{\bullet}{.}00.25 \%$$

←

$$.0025 \times 300 = .750$$

Find the Missing Percentages #2

$$2 = \underline{\quad 4 \quad} \% \text{ of } 50$$

$$2 \div 50 = .04$$

$$\underline{\quad .04 \quad} = 4 \%$$

## Word Problem #45

What is the interest on \$38,925.00 for 1 year at 5 ½ percent interest

$$5 \frac{1}{2} = .055$$

$$\begin{array}{r} \$38,925. \\ \times .055 \\ \hline \end{array}$$

$$\$2140.875$$

## Word Problem #46

Using the formula Fahrenheit =  $(9/5 C) + 32$ , what is the Fahrenheit temperature of a liquid with a centigrade temp. of 80 degrees?

$$9/5 = 1.8 \quad C = 80^0$$

$$(1.8 \times 80) + 32$$

$$144 + 32 = 176^0 f$$

## Word Problem #47

Using the formula  $A/B = C/D$ , find the value of (A) when  
(D = 4), (C = 6), (B = 8)

$$A = B \times \frac{C}{D} \quad A = \frac{8}{1} \times \frac{6}{4}$$

$$A = \frac{2 \cancel{8}}{1} \times \frac{6}{\cancel{4} 1} \quad A = \frac{12}{1}$$

## Word Problem # 48

The specific weight of an object can be found using the formula:

$$\frac{A}{C - W}$$

$$\frac{25}{6.25 - 3.75} = \frac{25}{2.5} = 10$$