

## AM1101 Sample Test: Modules 3 & 4

### Decimals, Ratio, & Proportion

Name: \_\_\_\_\_

Class: \_\_\_\_\_

Date: \_\_\_\_\_

**Note: Electronics devices can be used to check your answers, but you must show all workings to receive full credit.**

**Answer all questions on this paper and show all workings for full credit.**

**Write each of the following decimals in words.**

1. 15.93 \_\_\_\_\_

2. 200.806 \_\_\_\_\_

**Round each of the following decimals to the indicated place value.**

1. 1.064 to the nearest hundredth

2. 4.957 to the nearest tenth

**Add or subtract each of the following.**

1.  $78.25 + 452 + 0.38$

2.  $984.334 - 756.21$

**Multiply each of the following.**

1.  $243 \times 4.1$

2.  $43.5 \times 0.007$

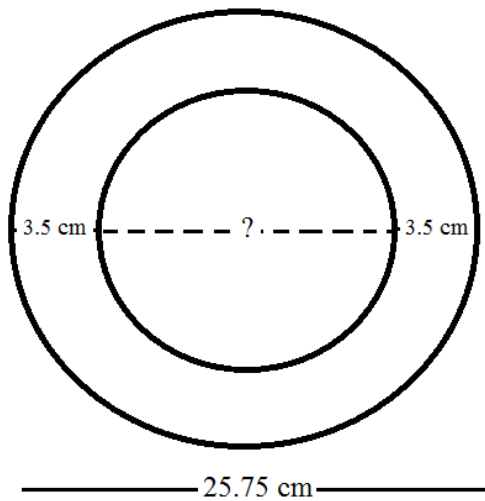
**Divide each of the following.**

1.  $52.08 \div 0.62$

2.  $1 \div 4$

**Word Problems**

1. If the outside diameter of a steel pipe is 25.75 cm and the wall of the pipe is 3.5 cm thick, what is the inside diameter of the pipe?



2. A piece of board 9.35 meters long has to be cut in 5 equal pieces. What will be the length of each piece?

**Change each of the following fractions to decimals.**

1.  $\frac{5}{8}$

2.  $3\frac{1}{6}$

**Change each of the following decimals to fractions.**

1. 0.4

2. 1.25

**Simplify each expression.**

1.  $1.6^2 + 7.2 \div (2.6 - 1.9)$

2.  $7.8 \times 2.4 - 1.2^2$

**Write each of the following as a ratio in lowest terms.**

1. 15 min to 60 min

2. 20 in to 45 in

3. 2 kg to 125 g (1kg = 1000g)

**Rewrite each as a unit rate.**

1. \$300 in 8 hours

2. \$45 for 6 pounds

3. 48L for 300 kilometers

**Solve the following proportions for the unknown quantity.**

1.  $\frac{3}{10} = \frac{n}{9}$

2.  $\frac{2}{x} = \frac{25}{75}$

**Word Problems**

1. Bolts cost \$32.50 for 100. How much would 360 bolts cost?

2. If the scale of a blueprint is 1/5 inches = 1 foot, what is the actual length of a wall that is 3 inches on the diagram?