

# Accuplacer Prep- Arithmetic

Thursday, July 22, 2010  
10:00 AM

## Arithmetic

This test measures your ability to perform basic arithmetic operations and to solve problems that involve fundamental arithmetic concepts. There are 17 questions on the Arithmetic tests, divided into three types.

- Operations with whole numbers and fractions: Topics included in this category are addition, subtraction, multiplication, division, recognizing equivalent fractions and mixed numbers, and estimating.
- Operations with decimals and percents: Topics include addition, subtraction, multiplication, and division with decimals. Percent problems, recognition of decimals, fraction and percent equivalencies, and problems involving estimation are also given.
- Applications and problem solving: Topics include rate, percent, and measurement problems; simple geometry problems; and distribution of a quantity into its fractional parts.

✦ At MCC you are allowed a four-function calculator for use on the test. Work here is by hand, but in some cases you could use a calculator.

1.  $2.75 + .003 + .158 =$
- A. 4.36
  - B. 2.911
  - C. 0.436
  - D. 2.938

$$\begin{array}{r} 2.750 \\ .003 \\ + .158 \\ \hline 2.911 \end{array}$$

2.  $7.86 \times 4.6 =$
- A. 36.156
  - B. 36.216
  - C. 351.56
  - D. 361.56

$$\begin{array}{r} 7.86 \\ \times 4.6 \\ \hline 4716 \\ 3144 \\ \hline 36156 \end{array}$$

36.156

3.  $\frac{7}{20} =$   
 A. 0.035  
 B. 0.858  
 C. 0.35  
 D. 3.5

$$7/20$$

$$\begin{array}{r} .35 \\ 20 \overline{) 7.00} \\ \underline{-60} \\ 100 \end{array}$$

4. Which of the following is the least?  
 A. 0.105  
 B. 0.501  
 C. 0.015  
 D. 0.15

$$\frac{105}{1000}$$

$$\frac{501}{1000}$$

$$\frac{15}{1000}$$

$$\frac{150}{1000}$$

5. All of the following are ways to write 25 percent of N EXCEPT  
 A. 0.25 N  
 B.  $\frac{25N}{100}$   
 C.  $\frac{1}{4} N$   
 D. 25 N

$\rightarrow .25$   
 $\rightarrow multiply$

.25

6. Which of the following is closest to  $27.8 \times 9.6$ ?  
 A. 280  
 B. 300  
 C. 2,800  
 D. 3,000

$$28 \times 10 = 280$$

7. A soccer team played 160 games and won 65 percent of

$$\begin{array}{c} .65 \\ \uparrow \\ * \\ \uparrow \end{array}$$

160

7. A soccer team played 100 games and won 65 percent of them. How many games did it win?

- A. 94  
 B. 104  
 C. 114  
 D. 124

$$\begin{array}{r} .65 \\ \hline 800 \\ 960 \\ \hline \boxed{104.00} \end{array}$$

8. Three people who work full-time are to work together on a project, but their total time on the project is to be equivalent to that of only one person working full-time. If one of the people is budgeted for one-half of his time to the project and a second person for one-third of her time, what part of the third worker's time should be budgeted to this project?

- A.  $\frac{1}{3}$   
 B.  $\frac{3}{5}$   
 C.  $\frac{1}{6}$   
 D.  $\frac{1}{8}$

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

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

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

$$1 - \left(\frac{2}{6} + \frac{3}{6}\right)$$

$$1 - \frac{5}{6}$$

$$\frac{6}{6} - \frac{5}{6} = \boxed{\frac{1}{6}}$$

9. 32 is 40 percent of what number?

- A. 12.8  
 B. 128  
 C. 80  
 D. 800

32 is 40 percent of what number?

$$\begin{array}{ccc} \downarrow & \downarrow & \downarrow \\ 32 & = & .40 \end{array} \quad * \quad X$$

$$32 = .40 X$$

$$\frac{32}{.40} = X$$

$$32 / .40 = \boxed{80}$$

10.  $3\frac{1}{3} - 2\frac{2}{5} =$

A.  $1\frac{1}{2}$

B.  $\frac{1}{15}$

C.  $\frac{14}{15}$

D.  $1\frac{1}{15}$

$$3\frac{1}{3} = \frac{10}{3}$$

$$2\frac{2}{5} = \frac{12}{5}$$

$$\text{LCD} = 15$$

$$\frac{10}{3} = \frac{50}{15}$$

$$\frac{12}{5} = \frac{36}{15}$$

$$\frac{50}{15} - \frac{36}{15} =$$

$$\frac{14}{15}$$