ANNE ARUNDEL COMMUNITY COLLEGE
Arnold, MD 21012   **ARITHMETIC PLACEMENT PRACTICE**

The *Arithmetic Placement Test* is designed to determine whether a student has sufficient arithmetic skills.

The following problems are similar to those given on the screening test. If you take some time to practice, your score will surely be higher. The answers to the problems appear at the end of this material.

The screening test is timed (1 hour) so your practice should be for accuracy and speed. There are thirty-six problems on the test and a **score of 27 or better** is passing. Only one retake of the test is allowed. **Students who are not successful in the retake must enroll in MAT 005**. **Calculators will not be permitted.**

There is **no fee** to take the placement test. **Students must bring a valid photo ID and know their social security number or AACC Student ID Number.**

Whole Number Arithmetic:

1. $\begin{array}{r} 4875 \\ +\,1928 \end{array}$
2. $\begin{array}{r} 8073 \\ -\,1584 \end{array}$
3. $\begin{array}{r} 38 \\ \times 27 \end{array}$
4. $15\overline{)3105}$

Arithmetic of Fractions:

5. *Write the lowest terms*:
    $\dfrac{30}{45}$

6. *Circle the largest fraction:*
    $\dfrac{4}{5}$ *or* $\dfrac{7}{10}$ *or* $\dfrac{2}{3}$

7. *Add:*
    $3\dfrac{1}{2} + \dfrac{5}{8} =$

8. *Multiply:*
    $2\dfrac{1}{8} \times 16 =$

9. *Divide:*
    $6 \div \dfrac{1}{2} =$

10. Mary used $\dfrac{2}{3}$ of her savings to make a down payment on a new car. If her savings were \$2,400, how much did she put down?

Decimal / Exponent Arithmetic:

11. *Write in decimal form*:
    $\dfrac{5}{8} =$

12. *Add:*
    $3.2705 + 4.02 + 13.315 =$

13: *Multiply:*
    $360 \times 1.2 =$

14. *Which number is the largest?*
    $0.0054,\ 0.001,\ 0.07,\ 1.0$

15. 7.5×10^{-3} *is equal to?*

16. $7.62 \times 4.7 =$

Percents:

17. *Divide:*
    $360 \div 1.2 =$

18. *Express:*
    $37\,\%\ as\ a\ decimal$

19. *Express:*
    $0.03\ as\ a\ percent$

20. *Express:*
    $13\%\ as\ a\ fraction$

21. If 40% of the thirty patients in a certain clinic have headaches, how many have headaches?

(OVER)

Ratio and Proportion:

22. What should "r" be in order to have $\frac{r}{5} = \frac{18}{30}$?

23. If it takes 4 cups of water to fill three glasses, how many cups will be needed to fill nine of the same glasses?

24. In a rural county 350 residents signed up for the armed forces. The breakdown of numbers for each branch is found in the table below. What percent of residents signed up for the Air Force? *(Round your answer to two decimal places)*

ARMY	NAVY	AIR FORCE	MARINES
70	56	64	160

25. A farmer tries to save space by putting cows and sheep altogether in a ratio 3:4 respectively. If the farmer gets 15 cows, how many sheep must have to keep the same ratio?

Determine the value of X in the following:

26. $3:2 = x:6$

27. $\frac{x}{27} = \frac{3}{5}$

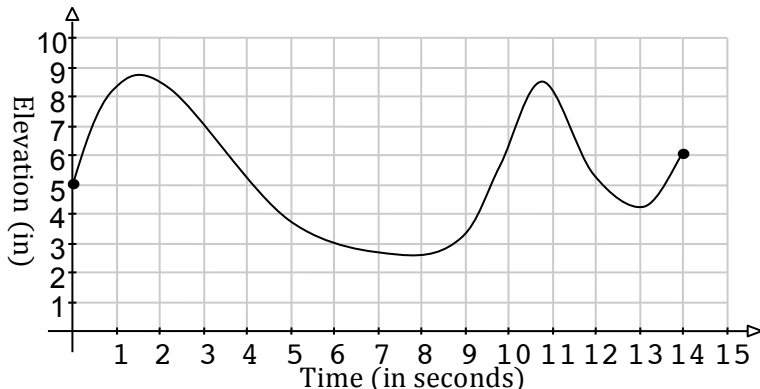**28.** $\frac{5}{7} = \frac{25}{x}$

29. $\frac{6}{100} = \frac{x}{100}$

30. *(Round your answer to two decimal places)* $\frac{1.2}{3.5} = \frac{10}{x}$

31. *Evaluate*: $10x - 6y$, if $x = 0.9 \text{ and } y = 2.5$

Graph Interpretation:
A buoy is bouncing up and down on the waves. The following graph depicts its elevation over a certain period of time.

32. What is the buoy elevation at 3 seconds?

33. Referring to the graph above, what is the independent variable?

Resources:
Math Lab: Library 107. Math professors or tutors available (**free to AACC Students**)
Monday-Thursday 9-8:30 p.m., Friday 9-3:00 p.m., Saturday 9-3:00 p.m. (limited summer hours).

Academic Support Center Information:
See our Website for locations and times:
https://www.aacc.edu/resources/academic-services/testing/.

ANSWERS: **1.)** 6803, **2.)** 6489, **3.)** 1026, **4.)** 207, **5.)** 2/3, **6.)** 4/5, **7.)** 4 1/8, **8.)** 34, **9.)** 12, **10.)** $1600, **11.)** 0.625, **12.)** 20.6055, **13.)** 432, **14.)** 1.0, **15.)** 0.0075, **16.)** 35.814, **17.)** 300, **18.)** 0.37, **19.)** 3% **20.)** 13/100, **21.)** 12 patients, **22.)** 3, **23.)** 12 cups, **24.)** 18.29% **25.)** 20, **26.)** 9, **27.)** 16.2, **28.)** 35, **29.)** 6, **30.)** 29.17, **31.)** -6, **32.)** 7 in., **33.)** time

7/8/2014