Flex Activity
Sample ACT Problems, 2 of 30

Name: Key Date: _____ Score: _____

MATHEMATICS TEST
8 Minutes—8 Questions

DIRECTIONS: Solve each problem, choose the correct answer, and then fill in the corresponding oval on your answer document.

Do not linger over problems that take too much time. Solve as many as you can; then return to the others in the time you have left for this test.

You are permitted to use a calculator on this test. You may use your calculator for any problems you choose, but some of the problems may best be done without using a calculator.

Note:Unless otherwise stated, all of the following sho be assumed.

1. Illustrative figures are NOT necessarily drawn to scale.
2. Geometric figures lie in a plane.
3. The word line indicates a straight line.
4. The word average indicates arithmetic mean.

Pre-Algebra 23% ~ about 14 out of 60

1. Which of the following lists all the positive factors of 8 ?

A. 1, 8
B. 2, 4
C. 2, 4, 6
D. 8, 16, 32
E. 1, 2, 4, 8

8
1 | 8
2 | 4

2. To determine a student's overall test score for the semester, Ms. Lopez throws out the lowest test score and takes the average of the remaining test scores. Victor earned the following test scores in Ms. Lopez's class this semester: 62, 78, 83, 84, and 93. What overall test score did Victor earn in Ms. Lopez's class this semester?

A. 67.6
B. 80.0
C. 83.0
D. 83.5
E. 84.5

62, 78, 83, 84, 93

$\frac{78+83+84+93}{4} = 84.5$

3. When $\frac{1}{3}k+\frac{1}{4}k=1$, what is the value of k ?

A. $\frac{1}{7}$
B. $\frac{12}{7}$
C. $\frac{7}{2}$
D. 6
E. 12

$\frac{4}{4}\cdot\frac{1}{3}k+\frac{3}{3}\cdot\frac{1}{4}k=1$

$\frac{4}{12}k+\frac{3}{12}k=1$

$\frac{12}{7}\cdot\frac{7}{12}k=1\cdot\frac{12}{7}$

$k=\frac{12}{7}$

Elementary Algebra 17% ~ about 10 out of 60

4. Which of the following is an equivalent simplified expression for $2(4x+7)-3(2x-4)$?

F. $x+2$
G. $2x+2$
H. $2x+26$
J. $3x+10$
K. $3x+11$

$2(4x+7)-3(2x-4)$
$8x+14-6x+12$
$2x+26$