

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.

but some of the problems may best be done without using a calculator.

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.

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

You are permitted to use a calculator on this test. You may use your calculator for any problems you choose,

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

Use the following information to answer questions 1 – 3.

A poll of 200 registered voters was taken before the election for mayor of Springdale. All 200 voters indicated which 1 of the 4 candidates they would vote for. The results of the poll are given in the table below.

Candidate	Number of voters
Blackcloud	50
Lue	80
Gomez	40
Whitney	30

1. What percent of the voters polled chose Whitney in the poll?

- A. 15%
B. 20%
C. 25%
D. 30%
E. 40%

$$\frac{30}{200} = .15 \text{ or } 15\%$$

(A)

2. If the poll is indicative of how the 10,000 registered voters of Springdale will actually vote in the election, which of the following is the best estimate of the number of votes Lue will receive in the election?

- F. 1,500
G. 2,500
H. 4,000
J. 5,000
K. 8,000

$$\frac{80}{200} = \frac{x}{10000} \quad x = 4,000 \text{ votes}$$

Cross-multiply
 $\frac{200x}{200} = \frac{800000}{200}$

(H)

3. If the information in the table were converted into a circle graph (pie chart), then the central angle of the sector for Gomez would measure how many degrees?

- A. 54°
B. 72°
C. 90°
D. 108°
E. 144°

$$\frac{40}{200} = \frac{x^\circ}{360^\circ}$$

Cross-multiply

$$\frac{200x}{200} = \frac{14400}{200}$$

$$x = 72^\circ$$

(B)

Elementary Algebra 17% ~ about 10 out of 60

4. The inequality $3(x+2) > 4(x-3)$ is equivalent to which of the following inequalities?

- F. $x < -6$
G. $x < 5$
H. $x < 9$
J. $x < 14$
K. $x < 18$

$$\begin{array}{r} 3x + 6 > 4x - 12 \\ -3x \quad -3x \\ \hline 6 > x - 12 \\ +12 \quad +12 \\ \hline 18 > x \end{array} \quad \rightarrow \quad x < 18$$

(K)