

## MATHEMATICS TEST

**DIRECTIONS:** Solve each problem, choose the correct answer, and then use your pencil to fill in the corresponding circle on your answer sheet.

Do not use too much time on any one problem. Solve the ones you can do quickly; then return to the others in the time you have left.

You should have a calculator to use for 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 the problem indicates otherwise, you should assume all of the following:

1. Diagrams 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. For example, the average of 2, 6, and 7 is  $(\frac{2+6+7}{3})$ .

Please do NOT write in your test booklet. You may do your figuring on the scratch paper provided. Your scratch paper will be collected along with your test booklet.

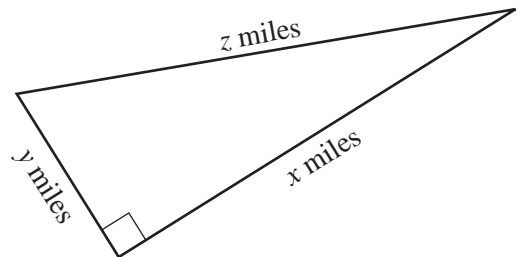
1.  $0.003 + 4.1 = ?$

- A. 4.003
- B. 4.1003
- C. 4.103
- D. 4.13
- E. 4.4

3. If  $4 + \frac{x}{6} = 6$ , then  $x = ?$

- A. 12
- B. 16
- C. 32
- D. 40
- E. 60

4. Which of the following is a general expression for the perimeter of the right triangle below, in miles?



2. What is the least expensive shower head on the chart below that will NOT deliver more than 3 gallons of water per minute (gpm)?

Information from *Consumer Reports*, "How to Save Water."  
©1990 by Consumers Union of U.S., Inc.

	<u>Brand and Model</u>	<u>Price</u>	<u>Maximum gpm</u>
F.	Sears 20173	\$23	3.4
G.	Teledyne 5 SM-3U	\$43	2.6
H.	Alsons 462PB	\$11	2.6
J.	Alsons 45C	\$58	2.7
K.	Moen 3981	\$95	2.4

- F.  $x + y + z$
- G.  $2(x + y)$
- H.  $\frac{x}{2} \cdot \frac{y}{2}$
- J.  $\frac{xy}{2}$
- K.  $xy$

5. Julia earned \$5.20 per hour for  $3\frac{1}{2}$  hours and Suki earned \$4.80 per hour for  $5\frac{1}{4}$  hours. Who earned more money and how much more?
- A. Julia earned \$7.00 more.  
 B. Julia earned \$17.00 more.  
 C. Suki earned \$7.00 more.  
 D. Suki earned \$17.00 more.  
 E. They each earned the same amount of money.
6. Tomas bought a new book on sale. It regularly cost \$17.95, but was on sale for 20% off. How much did the book cost Tomas?
- F. \$ 3.59  
 G. \$14.36  
 H. \$15.95  
 J. \$17.59  
 K. \$17.75
7. Kane bought a bag of taffy at the candy store. He got 10 vanilla for his mom, 15 chocolate for his dad, 6 licorice for his sister, and 22 peppermint for himself. On the way home, Kane's sister grabbed a piece out of the sack without looking. What are the chances that she pulled out a licorice piece?
- A.  $\frac{1}{6}$   
 B.  $\frac{6}{6}$   
 C.  $\frac{6}{47}$   
 D.  $\frac{6}{53}$   
 E.  $\frac{47}{53}$
8. What is the remainder when 189,540 is divided by 27 ?
- F. 0  
 G. 7  
 H. 13  
 J. 250  
 K. 7,020
9. The sum of the measures of the 3 angles in a triangle is  $180^\circ$ . If the measure of one angle in a triangle is  $40^\circ$ , which of the following could NOT be the measure of another angle in the triangle?
- A.  $1^\circ$   
 B.  $40^\circ$   
 C.  $90^\circ$   
 D.  $99\frac{1}{2}^\circ$   
 E.  $141^\circ$
10. Your teacher used the equation  $x + 19 = 120$  when showing the class how to start to solve the following problem.
- Josie gets paid 5¢ for each newspaper she delivers. She starts with 120 newspapers. If she has 19 newspapers left when she finishes, how much will she be paid for delivering newspapers?
- In the teacher's equation, the variable  $x$  represents the number of:
- F. dollars Josie will be paid.  
 G. cents Josie will be paid.  
 H. cents Josie would be paid for delivering the rest of the newspapers.  
 J. newspapers Josie has left.  
 K. newspapers Josie delivered.

Answer Key	
1	C
2	H
3	A
4	F
5	C
6	G
7	D
8	F
9	E
10	K