

**Arizona's Instrument to  
Measure Standards  
(AIMS)**

**Grade 6**

**Writing, Reading, and Mathematics**

**Released Items**

January 7, 2008

**Mathematics**

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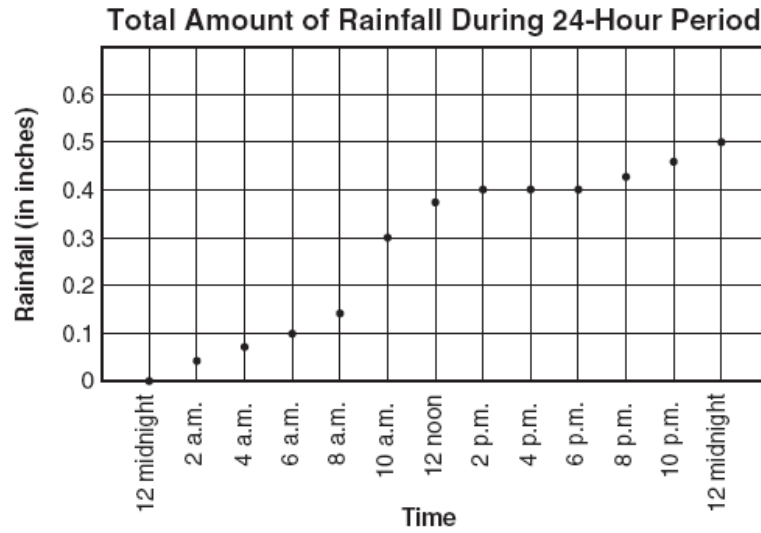
**DIRECTIONS:** Read each question and choose the best answer.

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1. Forty percent of Ms. Liu's class returned their field trip permission slips on Friday. What fraction of the class returned their field trip permission slips on Friday?
- A  $\frac{1}{5}$
- B  $\frac{1}{4}$
- C  $\frac{2}{5}$
- D  $\frac{2}{3}$
2. David is going to buy two new hats. Including tax, one hat costs \$7.49, and the other hat costs \$8.32. If David gives the cashier a \$20 dollar bill, how much change should David get?
- A \$4.18
- B \$4.19
- C \$15.71
- D \$15.81

Go On 

3. The graph below shows the total amount of rainfall in a city during a 24-hour period.



During which two-hour period did the total amount of rainfall remain the same?

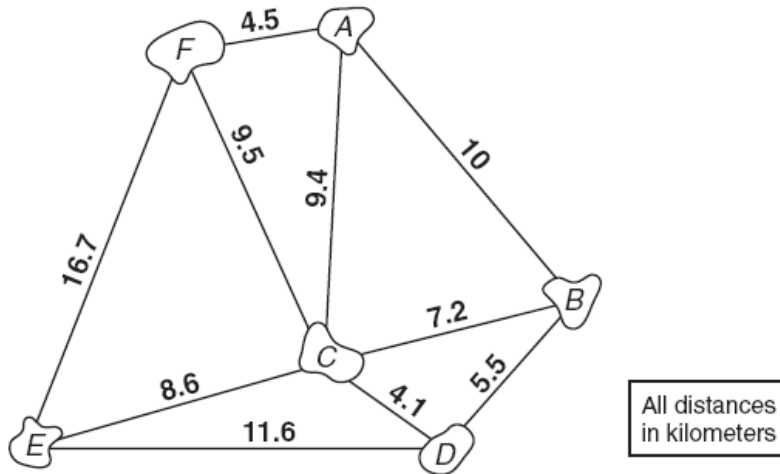
- A 4 a.m. to 6 a.m.
  - B 8 a.m. to 10 a.m.
  - C 4 p.m. to 6 p.m.
  - D 10 p.m. to 12 midnight
4. What is the value of the expression below when  $n = \frac{6}{7}$ ?

$$\boxed{n - \frac{3}{7}}$$

- A  $\frac{2}{7}$
- B  $\frac{3}{7}$
- C  $\frac{4}{7}$
- D  $\frac{9}{7}$

Go On

5. Visitors on a boat will travel to a group of islands. The vertex-edge graph below shows islands  $A$ ,  $B$ ,  $C$ ,  $D$ ,  $E$ , and  $F$ .



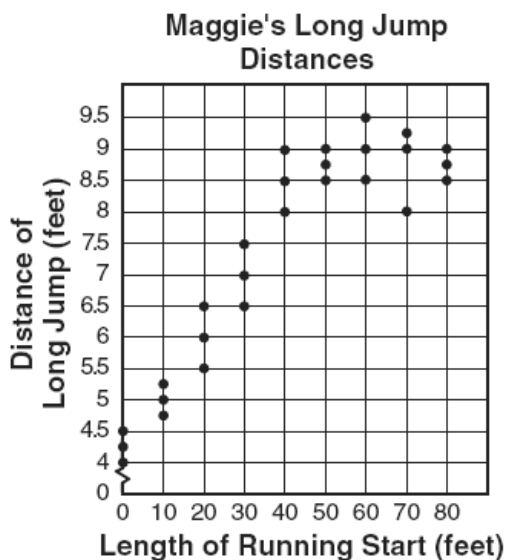
Note: The figure is not drawn to scale

Using the vertex-edge graph, which of these is the shortest route from island  $A$  to island  $E$ ?

- A  $A \rightarrow C \rightarrow E$
  - B  $A \rightarrow F \rightarrow E$
  - C  $A \rightarrow B \rightarrow C \rightarrow E$
  - D  $A \rightarrow C \rightarrow D \rightarrow E$
6. Which shape is a quadrilateral?
- A hexagon
  - B parallelogram
  - C pentagon
  - D triangle

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7. Maggie made the scatter plot below to record the distances she jumped with different running start lengths.



Which is the distance of Maggie’s longest jump when she had a running start of 20 feet?

- A 4.5 feet
  - B 6 feet
  - C 6.5 feet
  - D 9 feet
8. Matthew, Cory, Jordan, and Travis each own a different pet. The pets are a bird, a cat, a goldfish, and a hamster. Some clues about the pets are listed below.
- Matthew’s pet cannot fly.
  - The hamster belongs to a person with the letter “o” in his name.
  - Jordan’s pet does not have fur.
  - The cat does not belong to Travis.

Based on the clues, which pet does Matthew own?

- A bird
- B cat
- C goldfish
- D hamster

Go On

9. Peyton was given the division problem below to work.

$$1.7 \overline{)1.75}$$

Her work is shown below.

Step 1  $17 \overline{)1.75}$


Step 2  $17 \overline{)17.5}$

Step 3  $17 \overline{)175}$

Step 4  $17 \overline{)175.0}$

At which step did Peyton make her first mistake?

- A Step 1
- B Step 2
- C Step 3
- D Step 4

Go On 

**10.** Mary used the four points below as vertices of a polygon.

$(2, 5)$ ,  $(4, 2)$ ,  $(7, 7)$ ,  $(2, 9)$

Which could be Mary's polygon?

