 Grade 6

Released Items With Data

2011

## Which of these terms describes two lines that intersect to form $90^{\circ}$ angles?

(A) Corresponding
(B) Parallel
© Perpendicular
(D) Skew

00 For a recycling drive, Steven and two of his classmates collected aluminum cans. The table shows the weights in ounces of the cans they collected.

## Aluminum Cans Collected

| Student | Weight of Cans <br> (ounces) |
| :--- | :---: |
| Kevin | 14 |
| Steven | 34 |
| Cassie | 42 |

Which is closest to the total number of pounds of cans collected by Steven and his two classmates?
(A) 2.10
(B) 5.60
(C) 11.25
(D) 15.00

Neil raked 20 piles of leaves in 5 days. He raked the same number of piles each day. Which equation could be used to determine $n$, the number of piles of leaves Neil raked each day?
(A) $n=20+5$
(B) $n=20 \div 5$
(c) $n=5 \times 20$
(D) $n=5 \div 20$

In the table below, Erica listed the number of calories in one chocolate-chip cookie for five different brands.

Calories in Chocolate-Chip Cookies

| Brand | Number of <br> Calories in <br> One Cookie |
| :--- | :---: |
| Cookie-Ohs! | 60 |
| Ci-Ci's Cookies | 75 |
| Baker's Cookies | 60 |
| Tom's Cookies | 75 |
| Tasty Cookies | 80 |

For the brands listed, what is the mean number of calories in one chocolate-chip cookie?
(A) 60
(B) 70
(c) 75
(D) 80

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00 The names, years, and winning times of five U.S. champion swimmers in the men's 100-meter butterfly stroke are listed in the table below.
U.S. Champion Swimmers

| Name | Year | Winning Time <br> (seconds) |
| :--- | :---: | :---: |
| Douglas Russell | 1968 | 55.90 |
| Mark Spitz | 1972 | 54.27 |
| Matt Vogel | 1976 | 54.35 |
| Pablo Morales | 1992 | 53.32 |
| Michael Phelps | 2004 | 51.25 |

On the number line below, plot the winning times of the five swimmers listed in the table. Label each point with the initial of the swimmer's last name: $R, S, V, M$, and $P$.


The 2003 populations of several U.S. cities are listed in the table below.

2003 Populations

| City | Population |
| :--- | :---: |
| Indianapolis, Indiana | 783,438 |
| Columbus, Ohio | 728,432 |
| Jacksonville, Florida | 773,781 |
| San Francisco, California | 751,682 |

Which list shows the cities in order from the one with the least population to the one with the greatest population?
A. Columbus, Jacksonville, San Francisco, Indianapolis
B. Columbus, San Francisco, Jacksonville, Indianapolis
C. Indianapolis, Jacksonville, San Francisco, Columbus
D. Indianapolis, San Francisco, Jacksonville, Columbus

Which of these triangles is a regular polygon?
A. Isosceles triangle
B. Equilateral triangle
C. Right triangle
D. Scalene triangle

Marisela drew a triangle with two sides that were 9 inches long and one side that was 5 inches long. Conrad drew a triangle that was congruent to the one that Marisela drew. What was the length of the shortest side of the triangle Conrad drew?
A. 2 in .
B. 3 in.
C. 4 in.
D. 5 in .

Pamela bought 5 pounds of ground meat at the grocery store. She plans to make meat patties that weigh 4 ounces each. What is the maximum number of patties Pamela can make using 5 pounds of ground meat?
A. 10
B. 20
C. 25
D. 40

A survey was taken to find the mean ages of the people in 9 different states. The results are shown in the chart below.

| State | Mean Age |
| :--- | :---: |
| Alaska | 29 |
| Arizona | 32 |
| Idaho | 33 |
| Iowa | 34 |
| Mississippi | 31 |
| North Carolina | 33 |
| Texas | 31 |
| Vermont | 33 |
| Wyoming | 32 |

Part A. What is the mode of the ages shown in the chart?
Write your answer in the space below. Show or explain how you got your answer.

Mode: $\qquad$

Part B. How many states listed in the chart have a mean age of 32 or older? Write your answer in the space below. Show or explain how you got your answer.

Number of States: $\qquad$
$\qquad$
$\qquad$

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The finish times for six runners in a women's marathon are listed in the table below.

Women's Marathon

| Runner | Time <br> (Hr:Min:Sec) |
| :---: | :---: |
| Jean | $2: 28: 33$ |
| Sally | $2: 28: 11$ |
| Lynne | $2: 29: 53$ |
| Lily | $2: 28: 51$ |
| Katy | $2: 27: 33$ |
| Abby | $2: 29: 08$ |

What is the difference in minutes and seconds between the fastest runner and the slowest runner?
A. 0 min 20 sec
B. $0 \min 35 \mathrm{sec}$
C. 2 min 20 sec
D. 2 min 30 sec

Gilbert charges $\$ 50$ each time he mows the lawn at Jorgensen's Bank. Which expression can be used to represent the total amount of money that Jorgensen's Bank owes Gilbert for mowing the lawn $m$ times?
A. $\$ 50+m$
B. $\$ 50-m$
C. $\$ 50 \times m$
D. $\frac{\$ 50}{m}$


Carly drew figure PQRS to model a door under the stairway at a local museum. What type of angle is $\angle Q R S$ ?
A. Acute
B. Obtuse
C. Right
D. Straight

A circular fishpond has a diameter of 16 feet. What is the radius of the fishpond?
A. 4 ft
B. 8 ft
C. 32 ft
D. 50 ft

The Nelson family's swimming pool is in the shape of a regular hexagon. One side of the pool has a length of 10 feet. What is the perimeter in feet of the swimming pool?
A. 50 ft
B. 60 ft
C. 70 ft
D. 80 ft

A bag contains 10 marbles of equal size.

- There are 5 black marbles.
- There are 5 blue marbles.

Part A. What is the probability of reaching into the bag without looking and selecting a blue marble? Write your answer in the space below. Show or explain how you got your answer.

Probability: $\qquad$

Part B. If the marble referred to in Part A is not replaced, what is the probability of reaching into the bag without looking and selecting a black marble? Write your answer in the space below. Show or explain how you got your answer.

Probability: $\qquad$

