

Northwest Middle School

Blizzard Bag #1

Name _____

Date _____

6th Grade Math

Mrs. Throckmorton

- * Explain what needs to be done for each problem**
- * Show the work for each problem**
- * Circle your answer for each problem**

NO CALCULATOR

Grade 6 Mathematics

1 Justin divided 403 by a number and got a quotient of 26 with a remainder of 13. What was the number Justin divided by?

- A. 13
- B. 14
- C. 15
- D. 16

2 Leigh wants to find the number of ounces of pretzels in a 4-pound container. She knows the ratio of ounces to pounds is 16:1.

Which of the following equations can Leigh use to find x , the number of ounces of pretzels in the 4-pound container?

A. $\frac{x \text{ ounces}}{4 \text{ pounds}} = \frac{16 \text{ ounces}}{1 \text{ pound}}$

B. $\frac{x \text{ ounces}}{4 \text{ pounds}} = \frac{1 \text{ pound}}{16 \text{ ounces}}$

C. $\frac{4 \text{ ounces}}{x \text{ ounces}} = \frac{16 \text{ pounds}}{1 \text{ pound}}$

D. $\frac{4 \text{ pounds}}{x \text{ ounces}} = \frac{16 \text{ pounds}}{1 \text{ ounce}}$

Mathematics

- 3 Which of the following is equivalent to the expression below?

$$7h + 1$$

- A. $h + 7$
- B. $7(h + 1)$
- C. $(5h + 2) + 1$
- D. $(5 + 2)h + 1$

- 4 Which of the following is equivalent to the expression below?

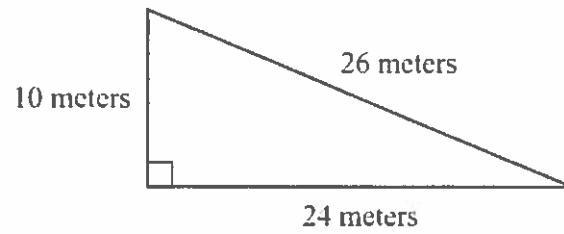
$$3 \times 3 \times 3 \times 3$$

- A. 3^3
- B. 3^4
- C. 4^3
- D. 4×3

Mathematics

Question 5 is a short-answer question.

- 5 A right triangle and its dimensions are shown in the diagram below.



What is the area, in square meters, of the triangle?

Mathematics

Question 6 is an open-response question.

- **BE SURE TO ANSWER AND LABEL ALL PARTS OF THE QUESTION.**
- **Show all your work (diagrams, tables, or computations).**
- **If you do the work in your head, explain in writing how you did the work.**

6 Lily wrote the expression shown in the box below.

$$6x - 3$$

- a. What is the coefficient of the variable in Lily's expression?
- b. What is the value of Lily's expression when $x = 5$? Show or explain how you got your answer.

Pedro wrote an expression that is equivalent to the statement shown in the box below.

8 more than the difference of $2x$ and 1

- c. What could be the expression that Pedro wrote?
- d. What is the difference of the value of Lily's expression when $x = 5$ and the value of Pedro's expression when $x = 5$? Show or explain how you got your answer.

Mathematics

7 Each meal at a school cafeteria is served with 2 portions of vegetables. What is the ratio of meals served to portions of vegetables served at the school cafeteria?

- A. 1:2
- B. 1:3
- C. 2:1
- D. 3:1

8 Madison finished $\frac{4}{5}$ of her homework before dinner. What percent of Madison's homework is left to finish?

- A. 15%
- B. 20%
- C. 45%
- D. 80%

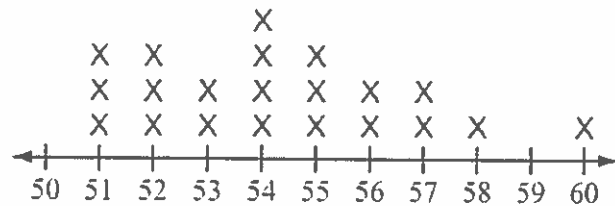
Grade 6 Mathematics

- 9 All of the benches in a park are red or blue. The ratio of red benches to blue benches in the park is 3:4.

Based on this information, which of the following statements is true?

- A. For every 4 benches in the park, 3 are red.
- B. For every 7 benches in the park, 4 are red.
- C. For every 3 red benches in the park, there are 4 blue benches.
- D. For every 3 red benches in the park, there are 7 blue benches.

- 10 A police officer recorded the speeds, in miles per hour, of 21 cars that passed by on a highway. The results are shown in the line plot below.



Speeds of Cars on a Highway
(miles per hour)

What is the total number of cars that had a recorded speed **greater than** 55 miles per hour?

- A. 6
- B. 9
- C. 12
- D. 21