

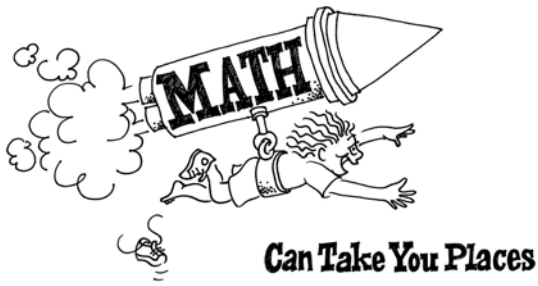
## Patterns PRACTICE QUESTIONS Set #1/Grade 4

- I. The fourth graders at Willingham Elementary are planning a trip to the Alamo in San Antonio, Texas. They are keeping record of the number of students who have turned in their money for the trip.

Number of Students who have turned in money	5	9	13	17
Total Amount of Money Collected (dollars)	40	72	104	

Which expression shows how to find the amount of money turned in by a total of 17 students?

- A.  $17 + 4$
- B.  $17 \times 4$
- C.  $17 \times 8$
- D.  $104 + 17$

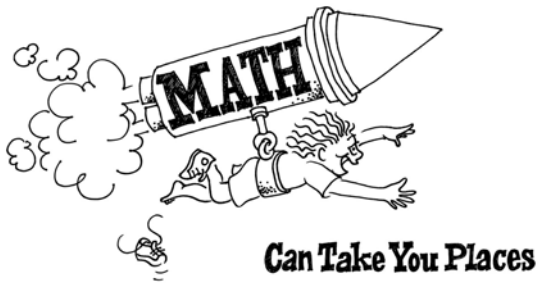


## Patterns PRACTICE QUESTIONS Set #1/Grade 4

2. A movie production company is filming a video of a 4<sup>th</sup> grade class. The students are going to build towers using cubes. Their teacher is keeping track of the number of cubes that each student receives to complete the activity. If she has passed out a total of 56 cubes, how will you find the total number of students who have cubes?

Total number of students with cubes	1	3	5	?
Total number of cubes that have been passed out	7	21	35	56

- A. Add 2 to 5.
- B. Divide 56 by 7.
- C. Add 14 to 35.
- D. Multiply 56 times 8.

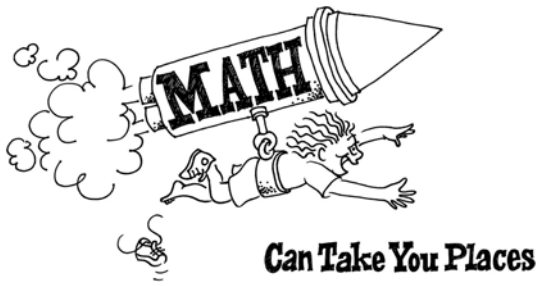


## Patterns PRACTICE QUESTIONS Set #1/Grade 4

3. If the pattern in the table continues, which phrase best describes how to find the missing value?

Time (hours)	Distance Traveled (miles)
1	300
2	600
3	900
4	?

- A. Multiply the number of hours by 400.
- B. Divide the distance traveled by 300.
- C. Add the distance traveled in 2 hours to the distance traveled in 3 hours.
- D. Add the distance traveled in 1 hour to the distance traveled in 3 hours.



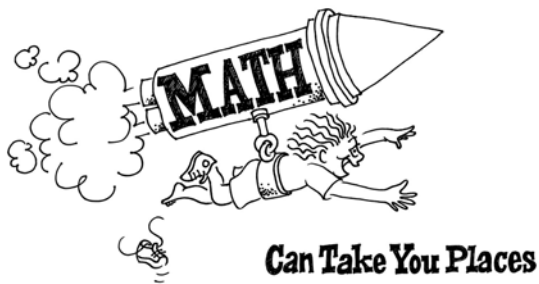
# Patterns

## PRACTICE QUESTIONS

Set #1/Grade 4

Answer:

1. C
2. B
3. D



## Patterns

### PRACTICE QUESTIONS

Set #2/Grade 5

1. Look closely at the pattern of numbers listed below.

**11, 18, 25, 32, 39....**

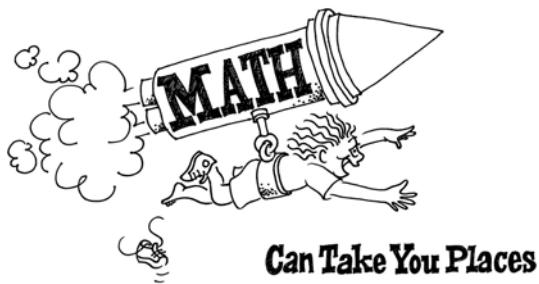
Which of the following numbers will fit the pattern if it continues?

- A. 54
  - B. 57
  - C. 60
  - D. 66
2. Candace and Mitchell were volunteers at the school fair where they collected tickets at the ring-toss booth. They recorded the following information about the number of people who played the ring-toss game and the number of tickets that were collected.

Time	Number of People	Number of Tickets Collected
12:00 PM	24	72
1:00 PM	32	96
2:00 PM	40	120
3:00 PM	33	99
4:00 PM	25	75

Which statement best describes how to determine the number of tickets each person needed to play the ring-toss game?

- A. Multiply the number of tickets collected by 3 to determine the number of people who played the ring-toss game.
- B. Divide the number of people by the number of tickets that were collected.
- C. Multiply the number of people by 4 to determine the number of tickets.
- D. Divide the number of tickets collected by the number of people.



## Patterns

### PRACTICE QUESTIONS

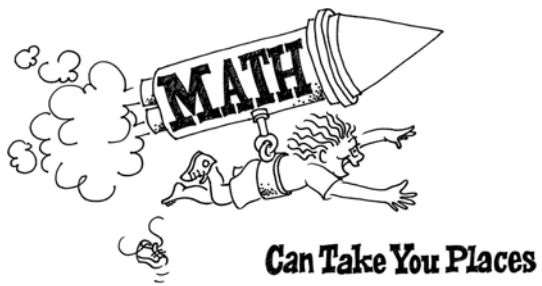
Set #2/Grade 5

3. Carrie was playing a video game entitled “Forest Frenzy.” In the game, each nut she collected for the squirrel family was worth a certain number of points. Look at the chart below.

Number of nuts collected	Number of points earned
2	250
4	500
6	750
8	1,000

How many points would Carrie earn if she collected 12 nuts?

- A. 1,250
- B. 1,500
- C. 1,750
- D. 2,000



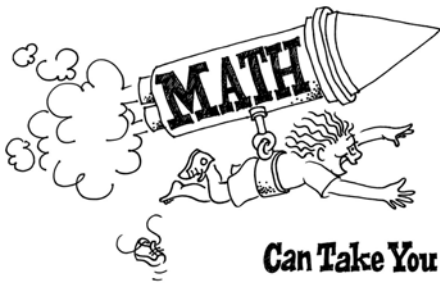
# Patterns

## PRACTICE QUESTIONS

Set #2/Grade 5

Answer:

1. C
2. D
3. B

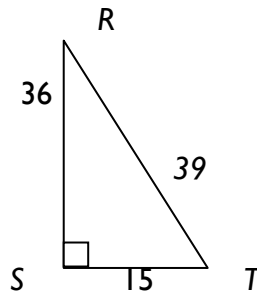
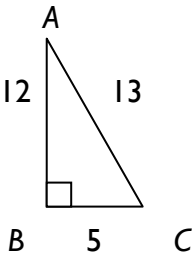


## Patterns PRACTICE QUESTIONS Set #3/Grade 6

1. All of the students in Mrs. Johnson's class measured their heights in centimeters. When the students graphed the data, every 10 centimeters of their actual height was equal to 1 centimeter on the graph paper. One student is about 150 centimeters tall. Which fraction best describes the ratio of the student's actual height to the number of centimeters representing the student's height on the graph?

- A.  $\frac{15}{150}$
- B.  $\frac{150}{15}$
- C.  $\frac{150}{10}$
- D.  $\frac{15}{1}$

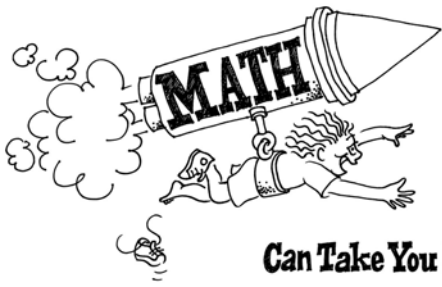
2. Students in Mr. Mendoza's mathematics class are studying similar figures. Look at the diagram comparing  $\triangle ABC$  to  $\triangle RST$ .



What is the ratio of the perimeter of  $\triangle ABC$  to  $\triangle RST$ ?

- A.  $\frac{10}{90}$
- B.  $\frac{90}{30}$
- C.  $\frac{1}{3}$
- D.  $\frac{1}{9}$





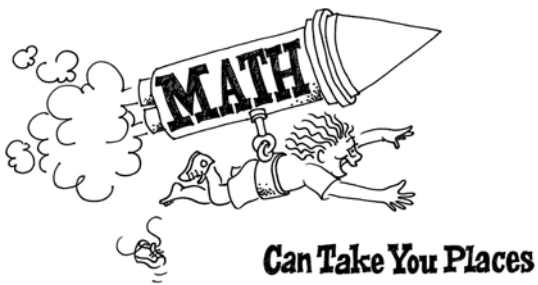
# Patterns

## PRACTICE QUESTIONS

Set #3/Grade 6

Answer:

1. B
2. C



## Patterns PRACTICE QUESTIONS Set #4/Grade 6

1. Stuart is buying CDs. The table shows the number of CDs and their total cost.

Number of CDs, $c$	Total Cost, $d$ (dollars)
2	\$35.00
3	\$52.50
4	\$70.00
5	\$87.50

Which expression best represents the total cost,  $d$ , in terms of the number of CDs,  $c$ ?

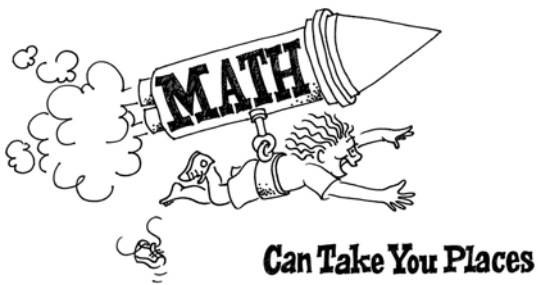
- A.  $15d$
- B.  $5/35c$
- C.  $17.5d$
- D.  $17.5c$

2. The table below shows the bases and the volumes of a set of rectangular prisms.

Base, $b$	Volume, $v$
3	12
5	20
8	32
12	48

Which expression best represents the volume of each rectangular prism,  $v$ , in terms of the height and base,  $b$ ?

- A.  $4v$
- B.  $\frac{v}{4}$
- C.  $4b$
- D.  $\frac{b}{4}$



## Patterns

### PRACTICE QUESTIONS

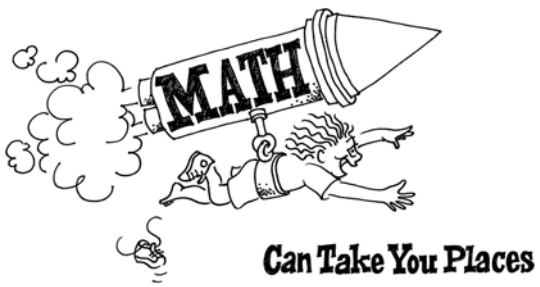
Set #4/Grade 6

3. Look at the measurement data in the table below.

Original measurement, $x$	New measurement, $y$
48	16
36	12
27	9
15	5

Which expression best describes this measurement conversion?

- A.  $x = \frac{1}{3}y$
- B.  $y = \frac{1}{3}x$
- C.  $y = 3x$
- D.  $x = 3y$



# Patterns

## PRACTICE QUESTIONS

Set #4/Grade 6

Answers:

1. D
2. C
3. B