STECK-VAUGHN

Test Best®

Stanford
Tenth Edition

Mathematics Problem Solving

DIRECTIONS ▶

Read each question or problem carefully. Then answer the question or work the problem. Mark the space for your answer.

SAMPLE A

What is the value of the 5 in 26,853?

5	50	500	5000
A	B	C	D

SAMPLE B

Yellow   Yellow

Red   Green

What fraction of the marbles are red?

$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{3}{4}$
A	B	C	D

1

The chart below shows the scores that four members of the diving team received for their first-round dives.

Diving Scores

Name	Score
Andy	9.21
Bob	9.87
Charlie	9.36
Zeb	8.95

Who received the *highest* score?

Andy	Bob	Charlie	Zeb
A	B	C	D

2

Which digit in the decimal number 28.307 is in the thousandths place?

0	3	7	8
A	B	C	D

22

Pete bought a case of 72 tennis balls. The tennis balls were in cans that each contained three balls.

In which equation does the ☐ stand for the number of cans in the case?

A ☐ $+ 3 = 72$ **C** $3 \div 72 =$ ☐

B $72 \times$ ☐ $= 3$ **D** $72 \div$ ☐ $= 3$

23

Alyssa and her mother ordered 5 dozen roses to be arranged and delivered. The chart shows the florist's prices.

Blossom Florist

Prices	
1 dozen roses	$25.00
Arranging and Delivery	$2.50 per dozen

What was the total cost of Alyssa's and her mother's order?

$108.50	$127.50	$120.50	$137.50
A	**B**	**C**	**D**

24

The chart below shows the prices at Lanes Bowling Center.

Lanes Bowling Center

Activity	Price
Bowling (per game)	$2.50
Shoe Rental (per pair)	$3.00
Video Arcade (per game)	$0.50

When Ricardo and his dad went bowling, they had $27.00 to spend. Each of them rented bowling shoes and bowled 3 games.

How much money do Ricardo and his dad have left?

$6.00	$5.50	$5.00	$4.50
A	**B**	**C**	**D**

25

Olga and Linus ran against each other for student council president. Olga received 156 votes and Linus received 188 votes. If there are 367 students in the school, how many students did not vote?

20	23	26	29
A	**B**	**C**	**D**

Number Sense and Operations

Place Value

The value of each digit in a number depends on its place, or position, in the number. Each place has a value that is a power of 10. Look at the number 2,472,195. Set up a place-value chart to help you find the value of each digit in the number.

millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones
1,000,000	100,000	10,000	1000	100	10	1
2	4	7	2	1	9	5

Use the place-value chart to write this number in *expanded form*.
2,000,000 + 400,000 + 70,000 + 2000 + 100 + 90 + 1
Use this information to find the value of the digits. For example, the value of the digit 7 in the number 2,472,195 is 7 ten thousands, or 7 × 10,000, or 70,000.

A place-value chart can help you understand decimal numbers.

tens	ones	and	tenths	hundredths	thousandths
0	9	.	3	8	1

Use the place-value chart to write 9.381 in expanded form.
9 + 0.3 + 0.08 + 0.001
Use this information to find the value of the digits. For example, the value of the digit 8 is 8 hundredths, or 8 × 0.01, or 0.08.

> ### Remember
> When you place a 0 to the left of the decimal point as a place holder, it does not change the value of the decimal.
>
> Example:
> .45 = 0.45

Example

Use this number to fill in the blanks below.

70,519.264

_____ is in the tens place. Its value is _____.

_____ is in the hundreds place. Its value is _____.

_____ is in the hundredths place. Its value is _____.

13

Kim answered 46 out of 50 questions correctly on her test. She received 2 points for every correct answer and she lost 1 point for every incorrect answer. What was Kim's test score?

A 86   **C** 88

B 92   **D** 96

14

Which number is *greater* than $2\frac{1}{5}$ and *less* than $2\frac{1}{4}$?

**A** 2.10   **C** 2.30

B 2.23   **D** 2.32

15

Mandy missed the bus to school so she had to walk. It takes her 20 minutes to get to school on the bus. It takes Mandy 1 hour to walk to school. How many times longer does it take for Mandy to walk to school than to take the bus?

A two times longer

B three times longer

C four times longer

D six times longer

16

Aaron wants to go to the observation deck at the top of the tallest building in the city. An elevator takes him to the top floor and he climbs the stairs to the deck.

Observation deck

68 feet

Elevator

986 feet
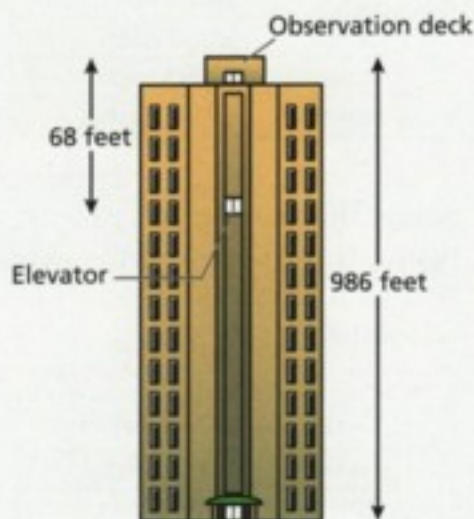
Which equation could be used to find the distance, d, Aaron traveled on the elevator?

A $986 - 68 = d$

B $986 + 68 = d$

C $d + 986 = 68$

D $d - 68 = 986$