STAR Test Sample Questions
4th Grade Mathematics

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STAR Test Sample Questions
4th Grade Mathematics

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Grade 4: Mathematics
Algebra and Functions (Performance Level: Advanced) – Question 01

Anna bought 3 bags of red gumballs and 5 bags of white gumballs. Each bag of gumballs had 7 pieces in it. Which expression could Anna use to find the total number of gumballs she bought?

A $(7 \times 3) + 5 =$

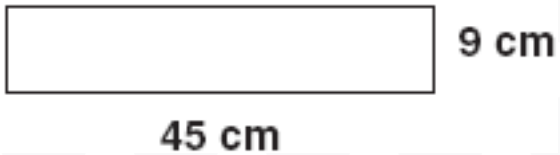B $(7 \times 5) + 3 =$

C $7 \times (5 + 3) =$

D $7 + (5 \times 3) =$

Grade 4: Mathematics
Algebra and Functions (Performance Level: Advanced) – Question 02

Which equation below represents the area (A) of the rectangle in square centimeters?

9 cm

45 cm

A $45 = A \times 9$

B $A = 45 \times 9$

C $A = (2 \times 45) + (2 \times 9)$

D $45 = (2 \times A) + (2 \times 9)$

The sum of x plus y equals 26. If $x=17$, which equation can be used to find the value of y?

A $\quad y-17=26$

B $\quad 17+y=26$

C $\quad x-y=26$

D $\quad x+17=26$

Grade 4: Mathematics
Algebra and Functions (Performance Level: Proficient) – Question 02

The letters S and T stand for numbers. If $S - 100 = T - 100$, which statement is true?

A $S = T$

B $S > T$

C $S = T + 100$

D $S > T + 100$

Grade 4: Mathematics
Algebra and Functions (Performance Level: Proficient) – Question 03

If $21 \times 7 = 7 \times a$, what is the value of a?

A   3
B   7
C   14
D   21

Grade 4: Mathematics
Algebra and Functions (Performance Level: Basic) – Question 01

**What is the value of the expression below
if** $a = 3$**?**

$$15 - (a + 8)$$

A   4
B   12
C   20
D   26

$$12 \div (4 + 2) =$$

A   2

B   3

C   5

D   6

Grade 4: Mathematics
Algebra and Functions (Performance Level: Basic) – Question 03

What is the value of the expression below?

$$(13 + 4) - (7 \times 2)$$

A   20
B   12
C   10
D   3

What is the value of x?

$$\left(16 \div 2\right) \times \left(4 - 2\right) = x$$

A   0
B   16
C   30
D   32

$$(18+3) \div (3-2) =$$

A   5
B   17
C   19
D   21

$$3 \times (9 + 1) - 6 =$$

A   12
B   18
C   22
D   24

Grade 4: Mathematics

Algebra and Functions (Performance Level: Basic) – Question 07

$$5 \times (8 - 2) =$$

A   25
B   30
C   38
D   42

Look at the problem below.

$$\square = \triangle + 4$$

If $\triangle = 7$, what is $\square$?

A   3
B   7
C   11
D   14

Grade 4: Mathematics
Algebra and Functions (Performance Level: Basic) – Question 09

Tina and Derek collect baseball cards. Each has the same number of cards. If Roberto gives Tina and Derek 5 more baseball cards each, who will have the greater number of baseball cards, Tina or Derek?

A   Tina

B   Derek

C   Tina and Derek will have the same number of baseball cards.

D   There is not enough information to answer the question.

$$35 + 6 = 35 + \square$$

A $2 + 2$

B 2×2

C $2 + 3$

D 2×3

Grade 4: Mathematics
Algebra and Functions (Performance Level: Basic) – Question 11

What number goes in the box to make this number sentence true?

$$(7-3) \times 5 = 4 \times \square$$

A   3
B   4
C   5
D   7

$$3 \times 2 \times 12 = 3 \times 2 \times \square$$
$$\square =$$

A 4×2

B 5×2

C 6×2

D 7×2

Which statement about the figures is true?

```
        15
┌──────────────────┐
│                  │
│                  │ 4
│                  │
└──────────────────┘
Figure 1
```

```
           20
┌────────────────────────┐
│                        │ 3
└────────────────────────┘
Figure 2
```
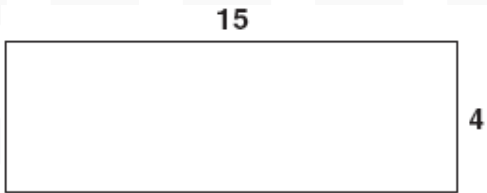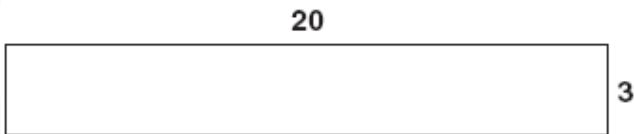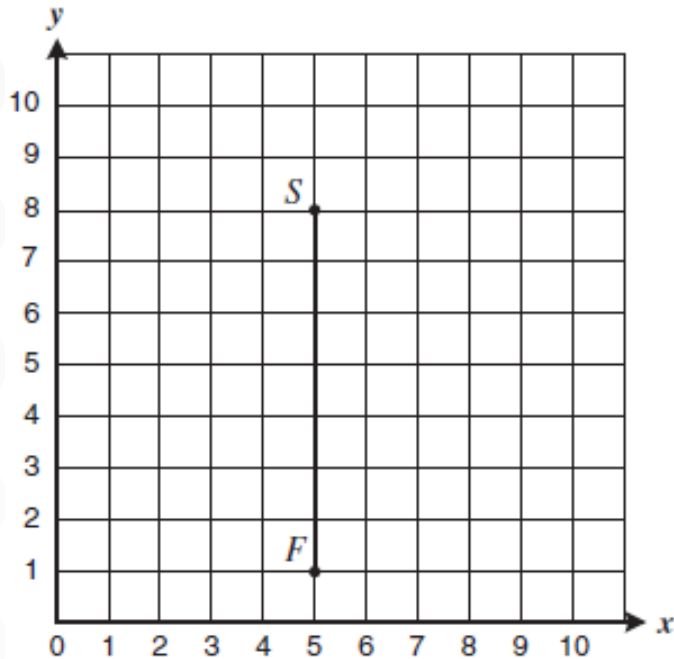
A   They both have the same area.
B   They both have the same width.
C   They both have the same length.
D   They both have the same perimeter.

Grade 4: Mathematics
Measurement and Geometry (Performance Level: Advanced) – Question 02

Look at the graph. Point S is at (5, 8).
Point F is at (5, 1).
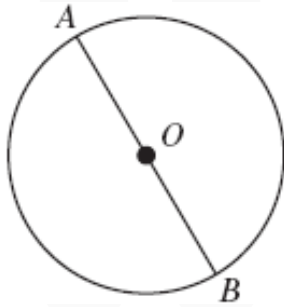

How can you find the number of units from
point S to point F?

A   Add: $5 + 8$

B   Add: $1 + 8$

C   Subtract: $8 - 5$

D   Subtract: $8 - 1$

Grade 4: Mathematics
Measurement and Geometry (Performance Level: Advanced) – Question 03

Look at the circle with center O.

The line segment AB appears to be

A   an arc.
B   a perimeter.
C   a radius.
D   a diameter.

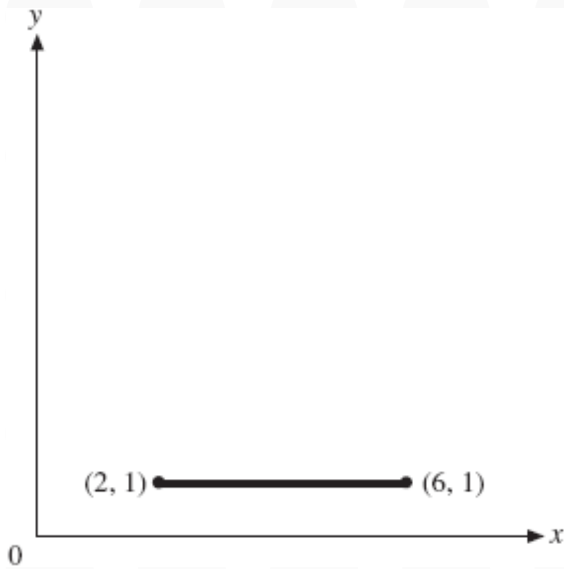**What kind of a triangle always has 3 acute angles and 3 sides the same length?**

A   isosceles
B   right
C   equilateral
D   scalene

Grade 4: Mathematics
Measurement and Geometry (Performance Level: Proficient) – Question 01

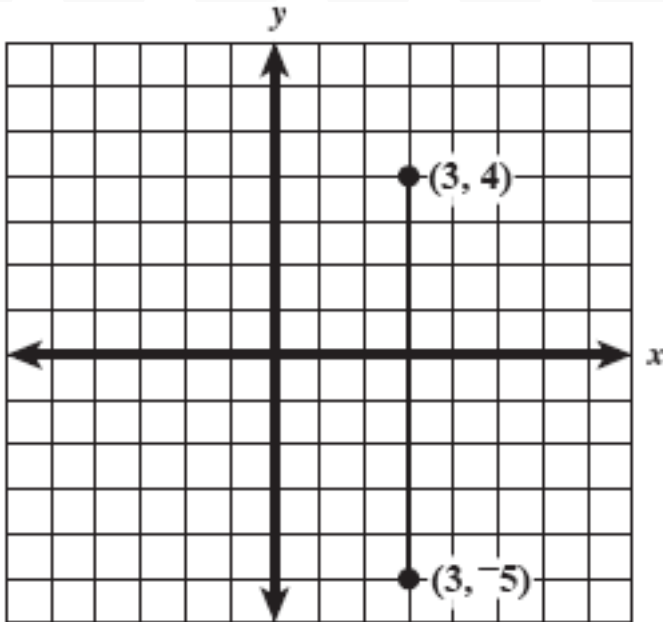**Look at the line segment shown below.**

What is the length of the line segment?

A   1 unit
B   2 units
C   4 units
D   6 units

Grade 4: Mathematics
Measurement and Geometry (Performance Level: Proficient) – Question 02

What is the length of the line segment shown on the grid?

A   9 units
B   7 units
C   5 units
D   4 units

Grade 4: Mathematics
Measurement and Geometry (Performance Level: Basic) – Question 01

Which figures below show pairs of lines that appear to be parallel?
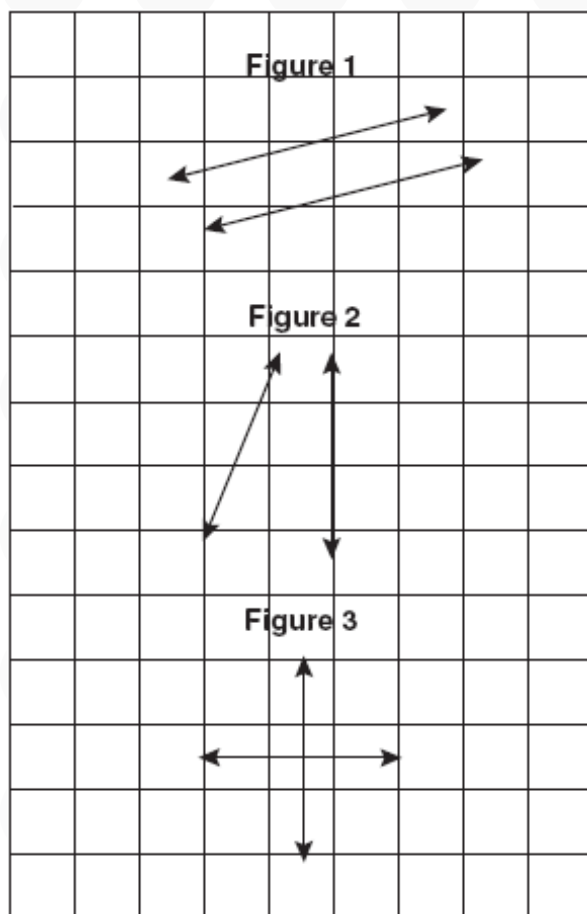
A   Figure 1 only
B   Figure 3 only
C   Figure 1 and Figure 2
D   Figure 2 and Figure 3

Grade 4: Mathematics
Measurement and Geometry (Performance Level: Basic) – Question 02

Which shape must have four equal sides and four right angles?

A   square
B   rectangle
C   rhombus
D   parallelogram

Grade 4: Mathematics
Measurement and Geometry (Performance Level: Below Basic) – Question 01

Which pair of shapes is congruent?

A

B
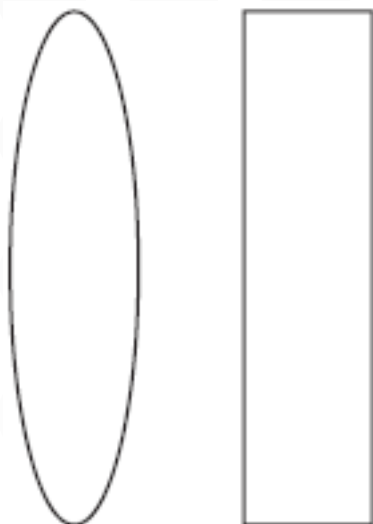
C
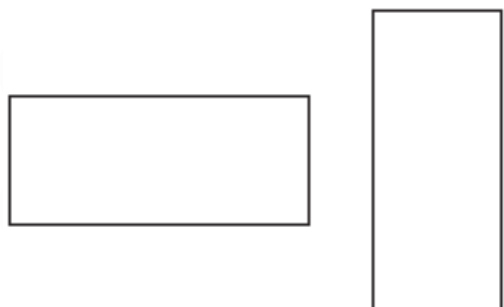
D

Which figure can form a pyramid
when folded on the dotted lines without
overlapping?
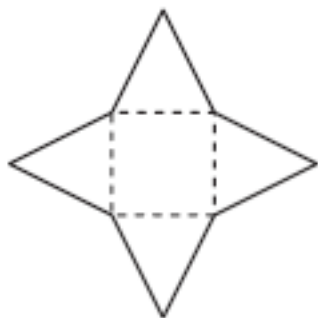
A
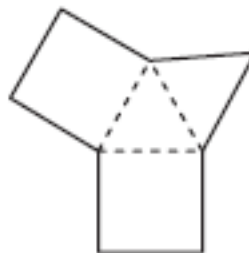
C

B

D

Grade 4: Mathematics

Number Sense - Decimals, Fractions, and Negative Numbers (Performance Level: Advanced) – Question 01

What fraction is best represented by point P on this number line?

A $\dfrac{1}{8}$

B $\dfrac{1}{5}$

C $\dfrac{3}{4}$

D $\dfrac{7}{8}$

Grade 4: Mathematics

Number Sense - Decimals, Fractions, and Negative Numbers (Performance Level: Advanced) – Question 02

The total length of a vehicle is 205.83 inches. What is the length of the vehicle rounded to the nearest whole number?

A   200 inches
B   205 inches
C   206 inches
D   210 inches

Grade 4: Mathematics

Number Sense - Decimals, Fractions, and Negative Numbers (Performance Level: Advanced) – Question 03

Which of the following has the greatest value?

A   12.1
B   0.97
C   4.23
D   5.08

Grade 4: Mathematics
Number Sense - Decimals, Fractions, and Negative Numbers (Performance Level: Proficient) – Question 01

Which of these is the number 5,005,014?

A   five million, five hundred, fourteen
B   five million, five thousand, fourteen
C   five thousand, five hundred, fourteen
D   five billion, five million, fourteen

Grade 4: Mathematics

Number Sense - Decimals, Fractions, and Negative Numbers (Performance Level: Proficient) – Question 02

What is 67,834,519 rounded to the nearest hundred thousand?
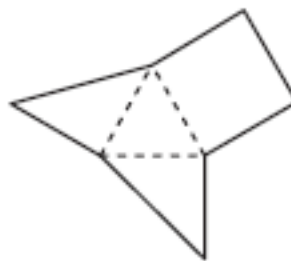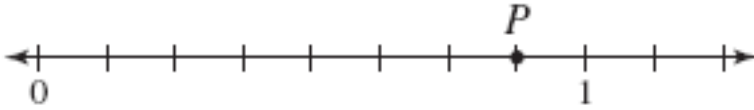
A   67,000,000
B   67,800,000
C   67,830,000
D   67,900,000

Grade 4: Mathematics

Number Sense - Decimals, Fractions, and Negative Numbers (Performance Level: Basic) – Question 01

The estimated cost to build a new baseball stadium is ninety-four million dollars.

What is this number in standard form?

A $90,400
B $94,000
C $90,400,000
D $94,000,000

Grade 4: Mathematics

Number Sense - Decimals, Fractions, and Negative Numbers (Performance Level: Basic) – Question 02

Look at the number line
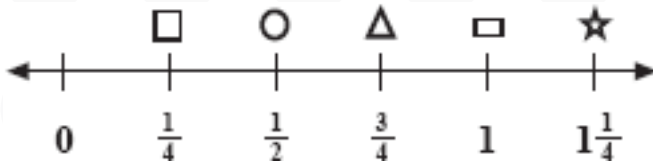
.
Between which two shapes is $\dfrac{2}{3}$?

A   between □ and ○

B   between ○ and △

C   between △ and ▭

D   between ▭ and ☆

Grade 4: Mathematics

Number Sense - Decimals, Fractions, and Negative Numbers (Performance Level: Basic) – Question 03

On the number line below, what number does point M represent?

M

36   37   38   39

A $36\dfrac{2}{5}$

B $37\dfrac{1}{5}$

C $38\dfrac{7}{10}$

D $39\dfrac{1}{10}$

Grade 4: Mathematics

Number Sense - Decimals, Fractions, and Negative Numbers (Performance Level: Basic) – Question 04

On Thursday Chris drove 167 miles, on Friday he drove 68 miles, and on Saturday he drove 73 miles. Approximately how many miles did Chris drive in the three days?

A   100 miles
B   200 miles
C   300 miles
D   400 miles

Grade 4: Mathematics

Number Sense - Decimals, Fractions, and Negative Numbers (Performance Level: Basic) – Question 05

What is 583,607 rounded to the nearest hundred?

A   583,000
B   583,600
C   583,700
D   84,000

Grade 4: Mathematics

Number Sense - Decimals, Fractions, and Negative Numbers (Performance Level: Below Basic) – Question 01

Which square is shaded?

A
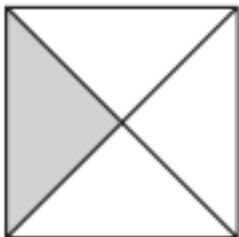
B

C
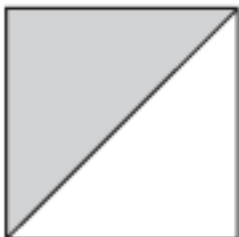
D
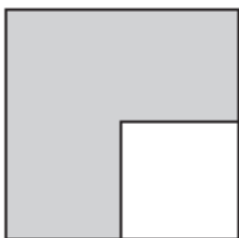
Grade 4: Mathematics

Number Sense - Decimals, Fractions, and Negative Numbers (Performance Level: Below Basic) – Question 02

Which decimal should be placed in the box to have the numbers in order from least to greatest?

| 0.28 | 0.32 | 0.54 | ? | 0.86 |

A   0.25
B   0.45
C   0.61
D   0.93

Grade 4: Mathematics

Number Sense - Operations and Factoring (Performance Level: Proficient) – Question 01

$$267 \div 6 =$$

A   43

B   43 R3

C   44

D   44 R3

There are 40 teachers at a school. Each
teacher is provided with 2500 sheets of paper.
How many sheets of paper is this in all?

A   10,000
B   100,000
C   1,000,000
D   10,000,000

Grade 4: Mathematics

Number Sense - Operations and Factoring (Performance Level: Proficient) –
Question 03

There are **58** cases of soda in a warehouse.
If there are **24** cans of soda in each case,
how many cans of soda are in the warehouse?

A   1392
B   1362
C   1292
D   1262

Grade 4: Mathematics

Number Sense - Operations and Factoring (Performance Level: Proficient) –
Question 04

A year has 365 days, and a day has 24 hours.
How many hours are in 365 days?

A   2190
B   7440
C   7679
D   8760

Grade 4: Mathematics

Number Sense - Operations and Factoring (Performance Level: Proficient) –
Question 05

There are 9 rows of seats in a theater. Each
row has the same number of seats. If there is
a total of 162 seats, how many seats are in
each row?

A   17
B   18
C   19
D   20

Grade 4: Mathematics

*Number Sense - Operations and Factoring (Performance Level: Proficient) –
Question 06*

Jeb paid $72 for a magazine subscription.
If he is paying $4 for each issue of the
magazine, how many issues of the magazine
will he receive?

A   18
B   20
C   22
D   24

Grade 4: Mathematics

Number Sense - Operations and Factoring (Performance Level: Proficient) –
Question 07

Maria read a 210-page book in 7 days.
She read the same number of pages each day.
How many pages did she read each day?

A   30
B   32
C   34
D   36

Grade 4: Mathematics
Number Sense - Operations and Factoring (Performance Level: Proficient) –
Question 08

Which statement is true?

A   The only factors of 8 are 1 and 8.

B   The only factors of 9 are 1 and 9.

C   The only factors of 10 are 1 and 10.

D   The only factors of 11 are 1 and 11.

Grade 4: Mathematics
Number Sense - Operations and Factoring (Performance Level: Proficient) – Question 09

Which is a prime number?

A   4
B   5
C   8
D   9

Grade 4: Mathematics

Number Sense - Operations and Factoring (Performance Level: Basic) – Question 01

Which of these is another way to write the product 12 x 7?

A $2 \times 3 \times 7$

B $3 \times 4 \times 7$

C $3 \times 6 \times 7$

D $6 \times 6 \times 7$

$$5894 - 2608 =$$

A   3276
B   3286
C   3294
D   3296

Grade 4: Mathematics

Number Sense - Operations and Factoring (Performance Level: Below Basic) – Question 02

$$2489 + 1678$$

A   3057
B   4067
C   4167
D   5157

Grade 4: Mathematics
Statistics, Data Analysis, and Probability (Performance Level: Advanced) –
Question 01

What is the mode of this set of numbers?

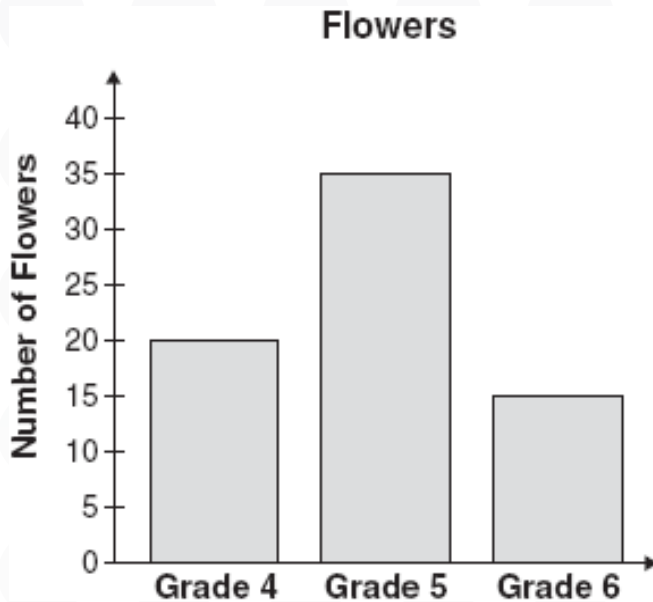{2, 2, 2, 3, 4, 4, 6}

A 2
B 3
C 4
D 6

Grade 4: Mathematics
Statistics, Data Analysis, and Probability (Performance Level: Basic) – Question 01

At a local school, the fourth, fifth, and sixth graders sold flowers as a fundraiser. The bar graph below shows how many flowers were sold by each grade.
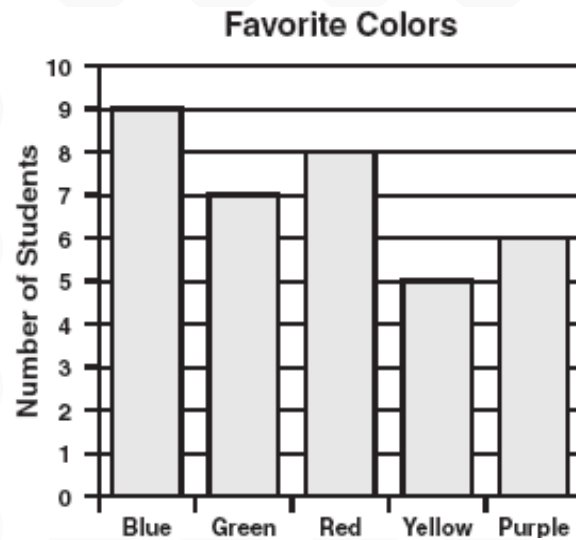
Flowers

How many flowers did the students sell in all?

A   20
B   35
C   40
D   70

Grade 4: Mathematics

Statistics, Data Analysis, and Probability (Performance Level: Below Basic) –
Question 01

Pietro surveyed 35 students about their favorite colors and made this bar graph.

Favorite Colors

Which of the following tally charts did he use to make this graph?

Favorite Colors

Blue										
Green								
Red									
Yellow						
Purple							

A

Favorite Colors

Blue									
Green							
Red								
Yellow					
Purple						

C

Favorite Colors

Blue											
Green									
Red										
Yellow							
Purple								

B

Favorite Colors

Blue										
Green									
Red								
Yellow							
Purple						

D