STAAR®

State of Texas Assessments of Academic Readiness

GRADE 3
Mathematics

Administered May 2022

RELEASED

STAAR GRADE 3 MATHEMATICS REFERENCE MATERIALS

STAAR
State of Texas
Assessments of
Academic Readiness
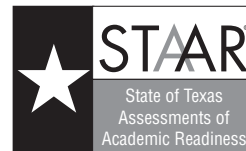
LENGTH

Customary	Metric
1 mile (mi) = 1,760 yards (yd)	1 kilometer (km) = 1,000 meters (m)
1 yard (yd) = 3 feet (ft)	1 meter (m) = 100 centimeters (cm)
1 foot (ft) = 12 inches (in.)	1 centimeter (cm) = 10 millimeters (mm)

VOLUME AND CAPACITY

Customary	Metric
1 gallon (gal) = 4 quarts (qt)	1 liter (L) = 1,000 milliliters (mL)
1 quart (qt) = 2 pints (pt)	
1 pint (pt) = 2 cups (c)	
1 cup (c) = 8 fluid ounces (fl oz)	

WEIGHT AND MASS

Customary	Metric
1 ton (T) = 2,000 pounds (lb)	1 kilogram (kg) = 1,000 grams (g)
1 pound (lb) = 16 ounces (oz)	1 gram (g) = 1,000 milligrams (mg)

TIME

1 year = 12 months

1 year = 52 weeks

1 week = 7 days

1 day = 24 hours

1 hour = 60 minutes

1 minute = 60 seconds

Inches 0 1 2 3 4 5 6 7 8

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This page shows only the metric ruler.

Centimeters 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

MATHEMATICS

DIRECTIONS

Read each question carefully. For a multiple-choice question, determine the best answer to the question from the four answer choices provided. For a griddable question, determine the best answer to the question. Then fill in the answer on your answer document.

1 Which comparison is true?

A $68 > 649$

B $571 > 582$

C $730 < 806$

D $709 < 692$

---

2 Haruko did 9 sit-ups in P.E. class. The number of sit-ups Tom did can be represented by this expression.

$$2 \times 9$$

Which statement is true?

F Tom did 2 times as many sit-ups as Haruko.

G Haruko did 2 times as many sit-ups as Tom.

H Tom did 2 more sit-ups than Haruko.

J Haruko did 2 more sit-ups than Tom.

3 A student measured the lengths of two worms.

- Worm S was $\frac{1}{2}$ foot long.

- Worm T was $\frac{2}{2}$ foot long.

Which statement is true?

A The length of Worm S is greater than the length of Worm T.

B The length of Worm T is greater than the length of Worm S.

C The length of Worm S is equal to the length of Worm T.

D There is not enough information to compare the lengths of the worms.

---

4 Trey is describing his labor and income. Which statement could be a description of both labor and income for Trey?

F Trey does volunteer work at a hospital.

G Trey pays a company to repair his roof.

H Trey takes $25 out of his bank account and spends the money at a store.

J Trey takes dogs for a walk after school and earns $25.

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5 The rectangular floor of Ms. Ragan's closet is completely covered with carpet squares. Each carpet square covers 1 square foot of the floor. There are 4 rows, and each row has 16 carpet squares.
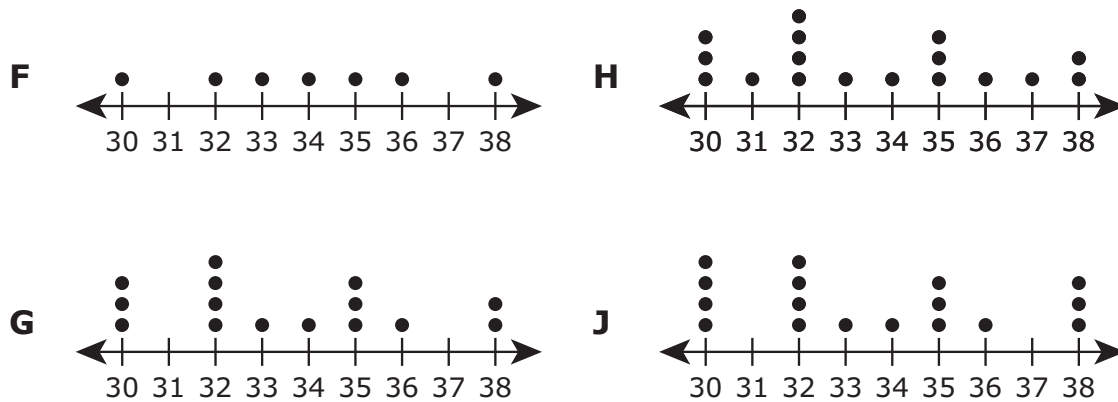
What is the area of the floor of this closet in square feet?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

6 The numbers listed show the speed in miles per hour Henry pitched a baseball.

30, 32, 38, 30, 33, 34, 32, 35, 38, 36, 35, 32, 30, 32, 35

Which dot plot represents the speed of Henry's pitches?

F — dot plot over number line 30 31 32 33 34 35 36 37 38

H — dot plot over number line 30 31 32 33 34 35 36 37 38

G — dot plot over number line 30 31 32 33 34 35 36 37 38

J — dot plot over number line 30 31 32 33 34 35 36 37 38

7 Gia lists some different methods she thinks she can use to solve the multiplication problem shown.

$$7 \times 11 = ?$$

Which answer choice is **NOT** a correct method for Gia to use?

A

B
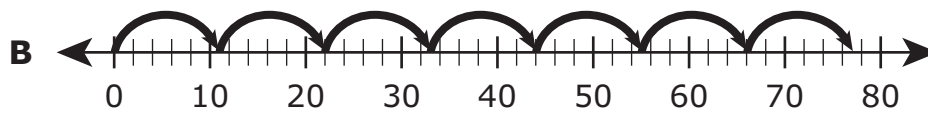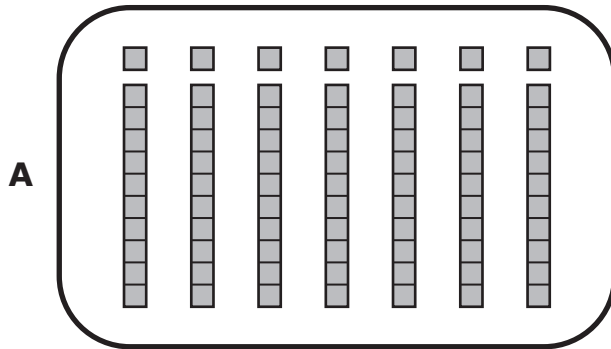
C 11, 22, 33, 44, 55, 66, (77)

D 7, 18, 29, 40, 51, 62, (73)

8 A group of figures is shown.
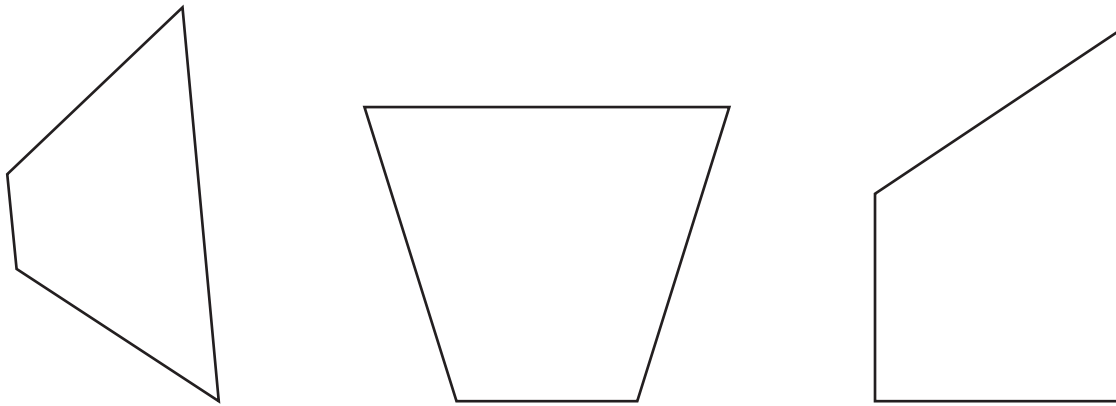
Which word best describes all the figures in the group?

F Rectangle

G Rhombus

H Trapezoid

J Parallelogram

9 The table shows the numbers of tomato plants and spinach plants in five different gardens.

Garden Plants

Garden	Number of Tomato Plants	Number of Spinach Plants
K	34	43
L	26	35
M	38	47
N	29	38
P	45	54

Based on the relationship shown in the table, which statement is true?

A There are 9 more spinach plants than tomato plants in each garden.

B There are 9 fewer spinach plants than tomato plants in each garden.

C There are 8 more spinach plants than tomato plants in each garden.

D There are 8 fewer spinach plants than tomato plants in each garden.

10 The picture shows 8 seats in a movie theater. Children are sitting in a fraction of the seats.
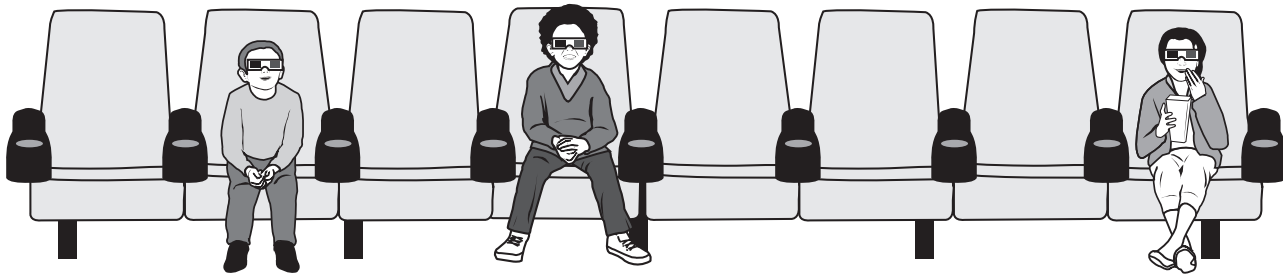
Which expression is equivalent to the fraction of the seats that have children sitting in them?

F $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$

G $\frac{1}{3} + \frac{1}{3} + \frac{1}{3}$

H $\frac{3}{8} + \frac{3}{8} + \frac{3}{8} + \frac{3}{8} + \frac{3}{8} + \frac{3}{8} + \frac{3}{8} + \frac{3}{8}$

J $\frac{1}{8} + \frac{1}{8} + \frac{1}{8}$

---

11 Which number sentence can be used to find the number that goes in the box?

$$12 \div 2 = \square$$

A $2 + 12 = 14$

B $6 \times 2 = 12$

C $12 \times 2 = 24$

D $2 + 10 = 12$

GO ON

12 Janet has 2 new games.

- Each game has 3 packs of cards.
- Each pack has 10 cards.

Which model can be used to find the total number of cards Janet has for these 2 games?

F
10	10	10

10	10	10

G
3	3	3

3	3	3

H
3	10

3	10

J
10

10

13 Leighton made a table that correctly shows the attributes of shapes. She used a check mark to identify the attributes of each shape.

Which table could be the one Leighton made?

A

	▭	△	○
Has Vertices	✓	✓	
Quadrilateral	✓	✓	

C

	▭	△	○
Has Vertices	✓	✓	
Quadrilateral	✓		

B

	▭	△	○
Has Vertices			✓
Quadrilateral	✓		

D

|	▭	△	○
Has Vertices	✓	✓	
Quadrilateral			

---

14 A group of people bought tickets for a roller-coaster ride.

- The group spent $4 for each ticket.
- Altogether the group spent $48 on tickets.
- Each person in the group got 2 tickets.

How many people were in the group?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.
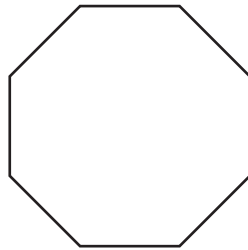
15 Carter and Dane shared a package of 8 baseballs equally.
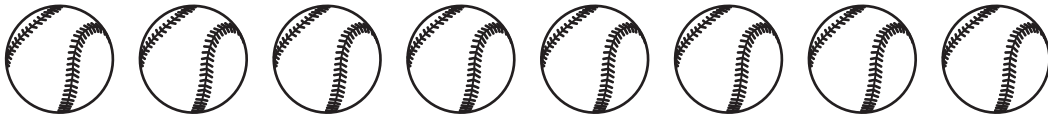
What fraction of the package of baseballs did each person get?

A $\frac{2}{8}$

B $\frac{4}{4}$

C $\frac{4}{1}$

D $\frac{4}{8}$

---

16 Each side of this figure is the same length. The perimeter of the figure is 72 inches.

What is the length of one side of the figure in inches?

F 8 in.

G 12 in.

H 9 in.

J 18 in.

GO ON

17 A movie theater has 710 seats.

- 158 seats are red.
- 247 seats are black.
- 119 seats are yellow.
- The rest of the seats are green.
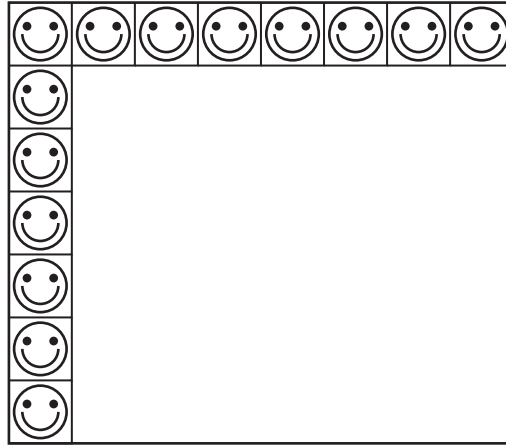
How many seats are green?

A 186

B 524

C 214

D 206

GO ON

18 Ms. González is putting square stickers on a rectangular poster. Each sticker has an area of 1 square inch. She has already put some stickers on the poster as shown.

What is the area of the entire poster in square inches?

F 56

G 42

H 48

J 15

19 Four students with number cards want to line up from left to right in order from least to greatest number.

Which statement is true?

A Olivia should be between Erin and Rico.

B Erin should be on the right end after Olivia.

C Penelope should be on the right end after Olivia.

D All the students are in the correct order.

20 Dahlia sold pineapples at a fruit stand. The table shows the number of pineapples Dahlia had for sale each week and the number of customers she expected to come to her fruit stand.

Dahlia's Pineapples

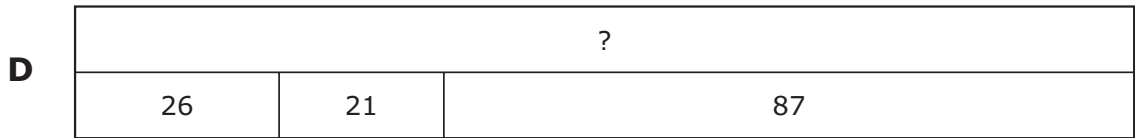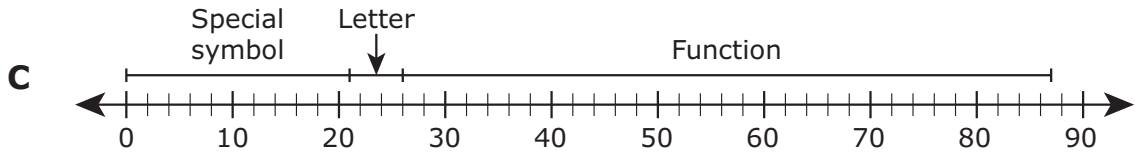|	Week 1	Week 2	Week 3	Week 4
Number of Pineapples	110	150	200	25
Number of Expected Customers	50	150	40	50

In which week did Dahlia most likely sell her pineapples for the highest price?

F Week 1, because the number of pineapples was greater than the expected number of customers

G Week 2, because the number of pineapples was the same as the expected number of customers

H Week 3, because fewer customers were expected to come to the fruit stand this week than any other week

J Week 4, because the number of pineapples was less than the expected number of customers

21 The total number of keys on a computer keyboard is 87.

- There are 26 letter keys and 21 special symbol keys on the keyboard.
- The rest of the keys are function keys.

Which model represents one way to find the number of function keys on the keyboard?

A

| Function | Special symbol | Letter |

A number line from 0 to 90. Function spans from 0 to about 22, Special symbol from about 22 to 61, Letter from 61 to 87.

B

87		
26	21	?

C

Special symbol | Letter | Function

A number line from 0 to 90. Special symbol spans from 0 to about 21, Letter marked near 24, Function spans from about 26 to 87.

D

?		
26	21	87
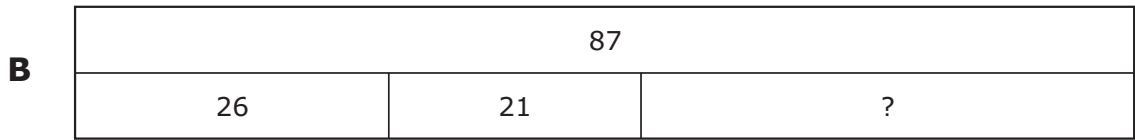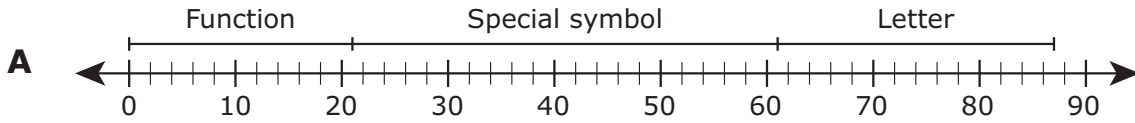
22 Chris built a fort using prisms. Which figure is **NOT** one Chris could have used to build his fort?

F

H

G

J

---
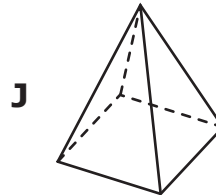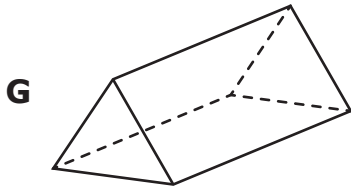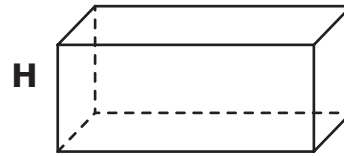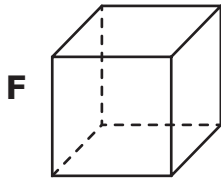
23 What number goes in the ☐ to make the equation true?

$$\square \times 7 = 98$$

A 14

B 91

C 105

D 13

24 An expression is shown.

$$5 + 700 + 40$$

What number is equivalent to this expression?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

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25 Greg had a package of 14 stars to put on the 2 posters shown. He put the same number of stars on each poster, and he used all the stars in the package.

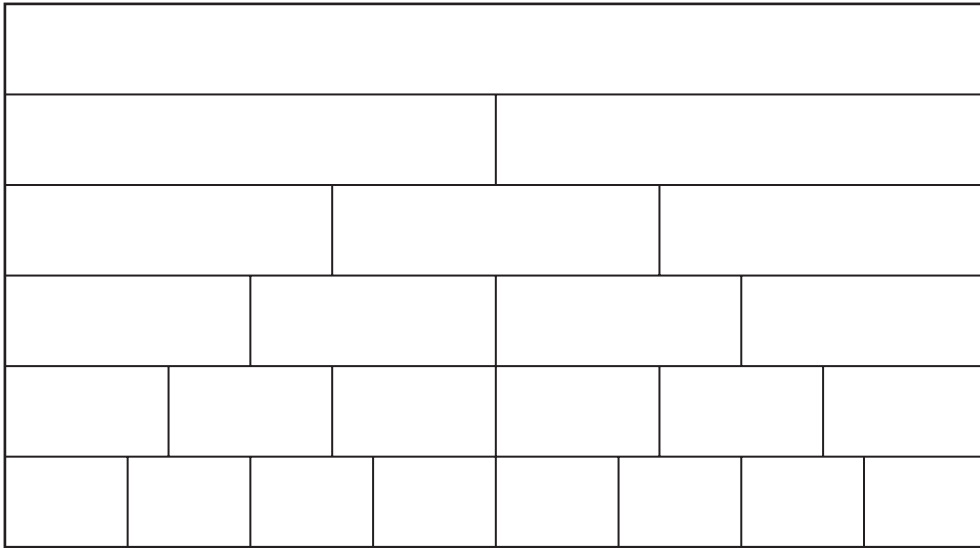Poster 1   Poster 2

How many stars did Greg put on each poster?

A 28

B 16

C 12

D 7

26 The fraction strips shown can be used to find equivalent fractions.

Which fraction is equivalent to $\frac{2}{4}$?

F $\frac{1}{2}$

G $\frac{2}{6}$

H $\frac{3}{4}$

J $\frac{1}{3}$

GO ON

27 Shelly needs tickets for rides at an amusement park. The table shows the numbers of tickets needed to ride different numbers of rides.

Amusement Park Rides

Number of Tickets	Number of Rides
6	3
12	6
18	9
24	12

Based on the relationship shown in the table, which statement is true?

A Shelly needs 3 tickets for each ride, because the number of tickets minus 3 equals the number of rides.

B Shelly needs 3 tickets for each ride, because the number of tickets plus 3 equals the number of rides.

C Shelly needs 2 tickets for each ride, because the number of tickets divided by 2 equals the number of rides.

D Shelly needs 2 tickets for each ride, because the number of tickets times 2 equals the number of rides.

---

28 Which statement about the number 27 is true?

F It is even because the digit in the tens place is even.

G It is odd because the digit in the ones place is odd.

H It is even because it can be divided by 9 evenly.

J It is odd because it can be divided by 2 evenly.

GO ON

29 Derrick drew two congruent figures and then shaded $\frac{1}{4}$ of each figure.

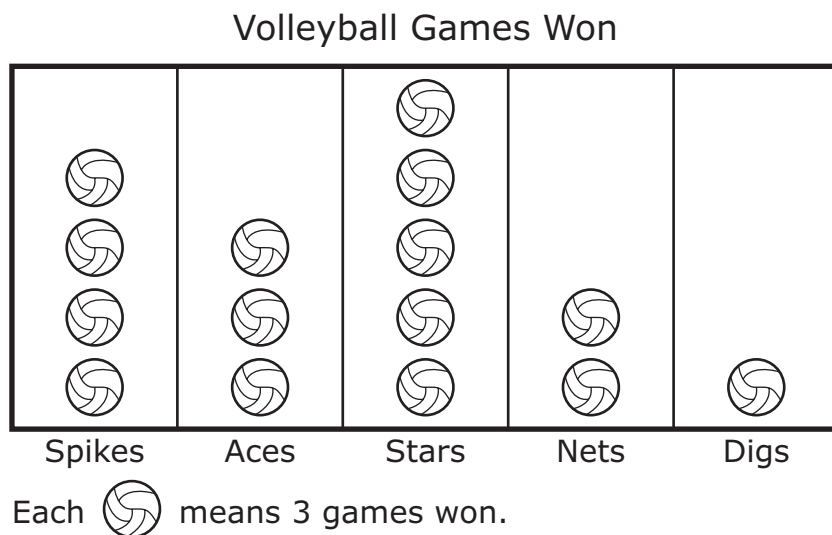Which figures could be the ones Derrick drew and shaded?

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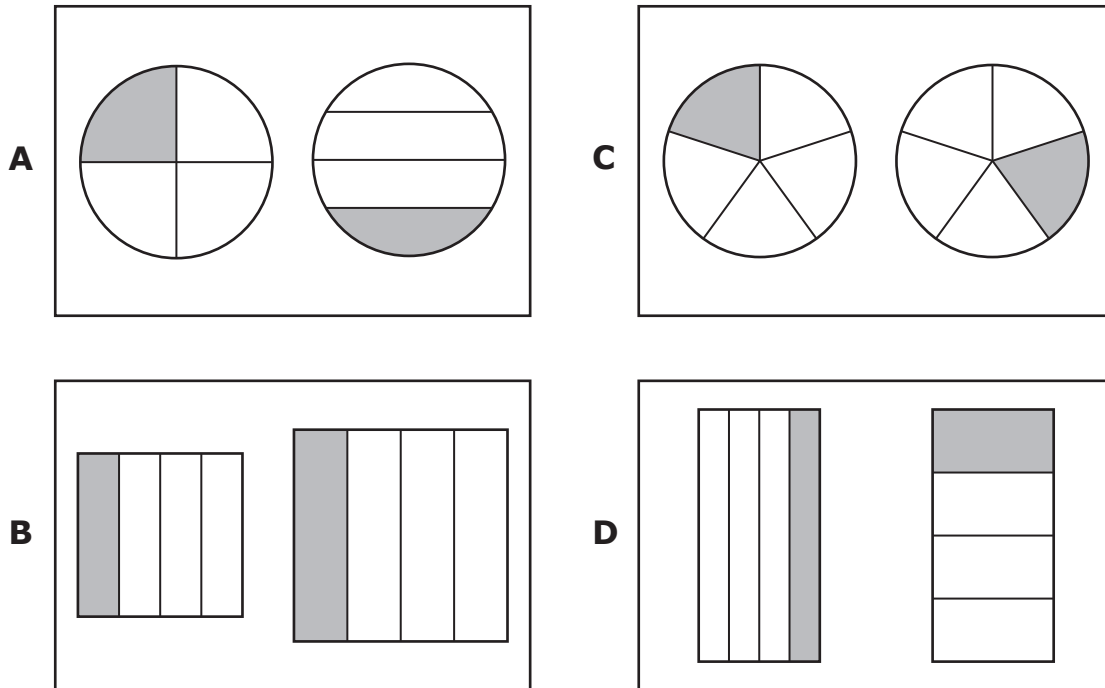
30 Alex bought 4 packages of pink golf balls and 2 packages of orange golf balls. There were 12 golf balls in each package.

How many golf balls did Alex buy?

F 72

G 50

H 96

J 18

31 The pictograph shows the number of games each team in a volleyball league won during one season.

Volleyball Games Won

Each ⊘ means 3 games won.

Which table represents the data in the pictograph?

Volleyball Games Won

A

Team	Spikes	Aces	Stars	Nets	Digs
Number of Games Won	12	15	9	6	3

Volleyball Games Won

B

Team	Spikes	Aces	Stars	Nets	Digs
Number of Games Won	4	3	5	2	1

Volleyball Games Won

C

Team	Spikes	Aces	Stars	Nets	Digs
Number of Games Won	12	9	15	6	3

Volleyball Games Won

D

Team	Spikes	Aces	Stars	Nets	Digs
Number of Games Won	4	5	3	2	1

GO ON

32 At the beginning of September, Mr. Watkins had 543 erasers.

- During September he gave his students 99 of the erasers.
- During October he gave his students 212 of the erasers.

How many erasers did Mr. Watkins have at the end of October?

F 854

G 232

H 430

J 344

BE SURE YOU HAVE RECORDED ALL OF YOUR ANSWERS ON THE ANSWER DOCUMENT.

STOP

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