

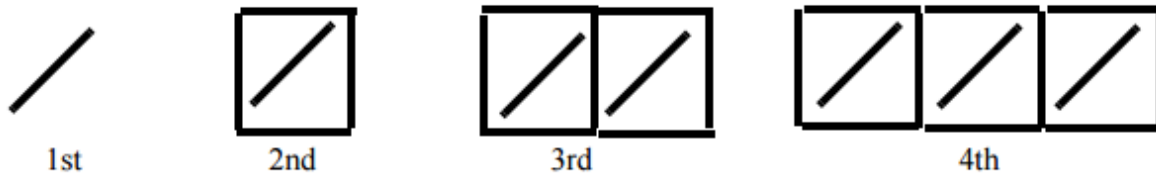
Algebra 1 iRA / tRA

Question 1

A baker made 38 bread rolls and packed them into bags. Each bag contained 8 rolls but there were not enough rolls to fill the last bag. How many rolls went into the last bag?

- A 2 B 4 C 5 D 6

Question 2



How many sticks will be needed to make the 7th shape in this pattern?

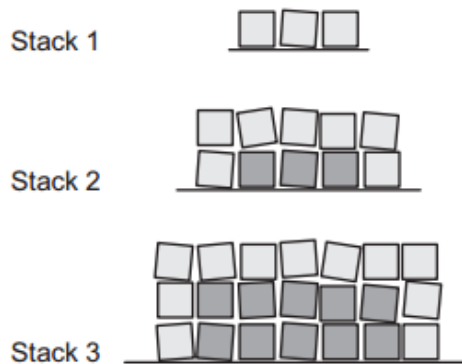
- A 17 B 25 C 29 D 30

Question 3

Dean is stacking bales of hay against a barn wall. He starts with a row of three.

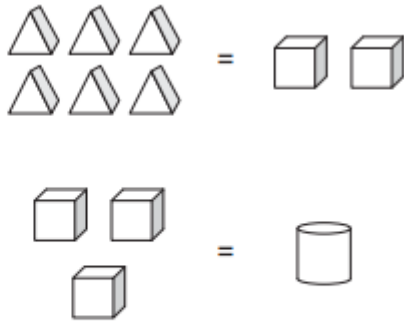
Then he adds one to each end of the row and puts an extra row on top so Stack 2 contains 10 bales.

If he continues this process, how many bales will be in Dean's **fifth** stack?



- A 36 B 42 C 50 D 55

Question 4



How many  =  ?

- A 3 B 6 C 9 D 12

Question 5

$$25 \times 16 = 100 \times \boxed{?}$$

Which number makes this number sentence correct?

- A 2 B 4 C 6 D 8

Question 6

For every 10 white cars a car dealer sells, he sells 7 silver, 6 blue, 5 red, 4 yellow, 3 green, 2 black, 2 purple cars and 1 brown car.
In 2008, his car yard sold 120 cars.

How many blue cars were sold?

- A 9 B 12 C 18 D 20

Question 7

Hero Cards come in packs of six.

Max wins eight packs of Hero Cards, which he opens.

He decides to give as many of his friends as he can nine of these cards each.

How many cards are left over after he does this?

- A none B 3 C 5 D 6

Question 8

A number is multiplied by the number 3 less than itself.
The result is 54.
The number is

- A 6 B 9 C 18 D 30

Question 9

If $z = -8$, what is the value of $4z$?

- A -48 B 32 C -4 D -32

Question 10

What is the value of $2 + 5x - x^2$ when $x = -2$?

- A -12 B -4 C 8 D 16

Question 11

When $z = 4$, $t = 17$ and when $t = 5$, $z = 2$.
Which one of these rules relates the values of z and t ?

- $t = 4 \times z + 1$ $z = (t + 3) \div 5$ $6 \times z - 7 = t$ $21 - t = z$
A B C D

Question 12

The thickness of a hard-cover book depends on the number of pages it has.
This table shows the thickness (in mm) of some hard-cover books.

Pages	200	300	400	500	800
Thickness (in mm)	27	31	35	39	?

How thick (in mm) will a hard-cover book with 800 pages be?

- A 43 B 51 C 70 D 81

Question 13

Which of these expressions is the same as $2x + y + 5x + y$?

$7x^2 + 2y$

$7x^2 + y^2$

$7x + 2y$

$7xy$

A

B

C

D

Question 14

If a , b and c represent numbers and $a > b > c$, which one of these statements is **always** true?

A $a > b - c$

B $c < a - b$

C $b + a > b + c$

D $b - c < b - a$

Question 15

When $k = 3$ and $p = -1$ what is the value of $\frac{2k^2 + 3}{5 - 2p}$?

A 3

B 5

C 7

D 13