

SMC

Singapore Math Challenge

Practice Book

Primary 4 / Grade 4

2021 SINGA Assessment – Primary 4

2 point(s)

Write the missing number in the number pattern below.

7648 , 7798 , 7948 , _____ , 8248

2 point(s)

Round the sum of 18.208 and 1.42 to the nearest whole number

2 point(s)

Find the sum of all the factors of 81

2 point(s)

David went to sleep at 21 50.

He slept for 9 h 20 min.

At what time did he wake up? (Give your answer in 24-hour clock format.)

2 point(s)

I am a 3-digit odd number.

All my three digits are different.

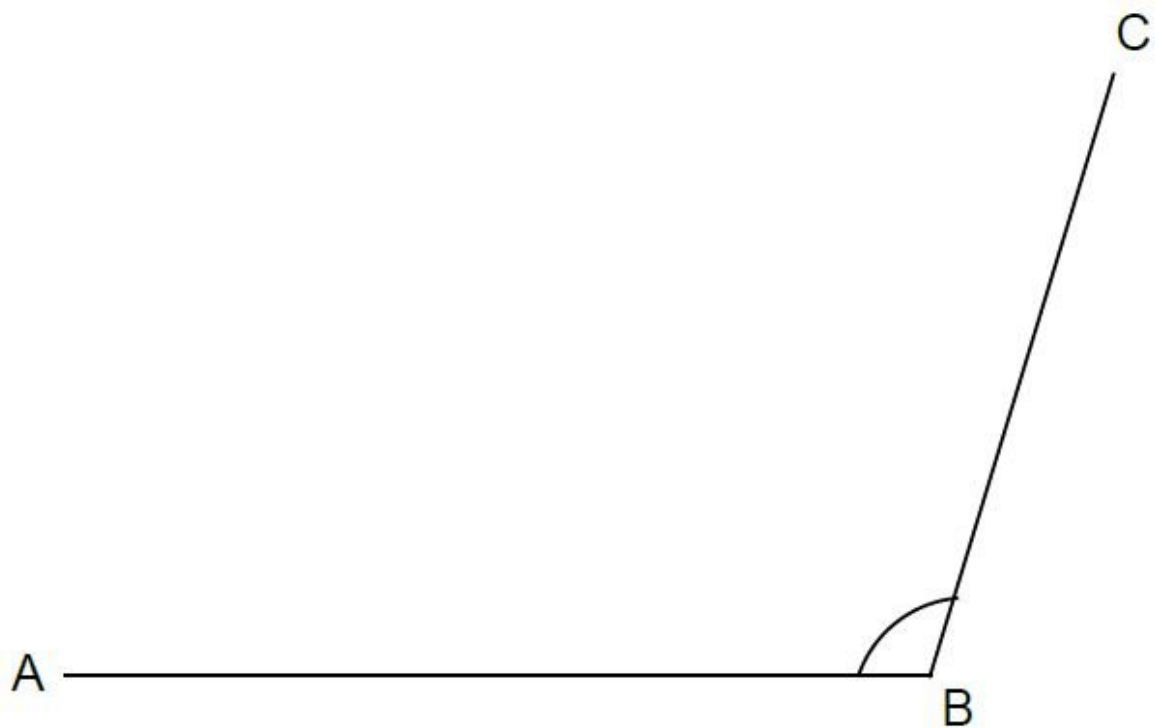
All my three digits are multiples of 3.

The digit in the 'hundreds' place is twice the digit in the 'ones' place.

What number am I?

2 point(s)

Using a protractor, measure $\angle ABC$



2 point(s)

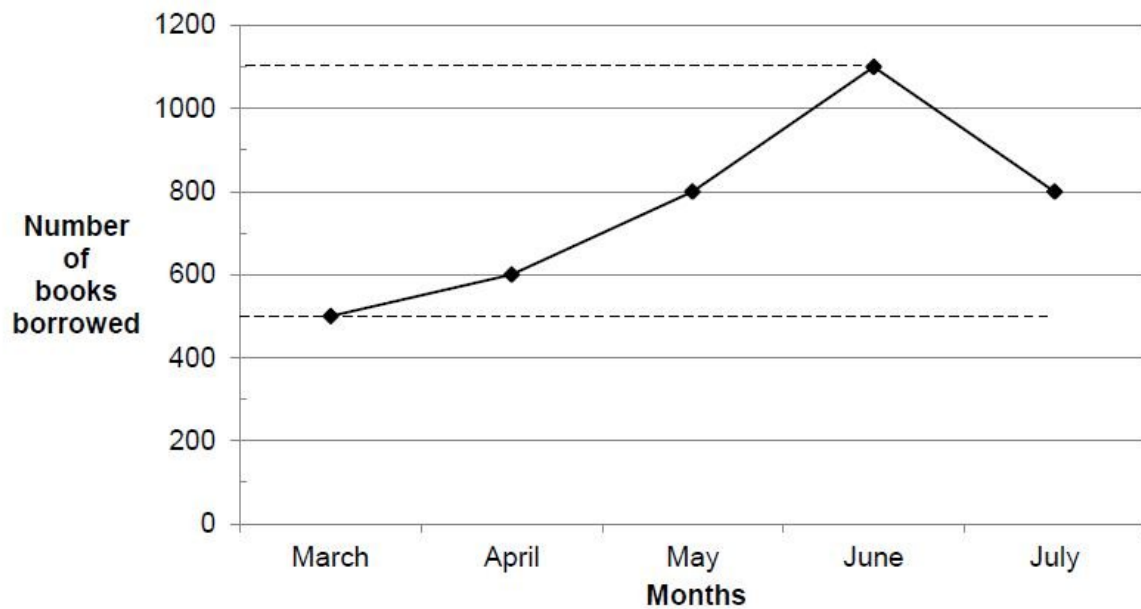
Mary gave 55 beads to Betty. Then she received 36 beads from Lydia.
Mary had 342 beads in the end. How many beads did Mary have at first?

2 point(s)

A man changed \$210 into \$5 and \$2 notes.
The number of \$5 notes and \$2 notes was the same.
How many \$5 notes did he get?

2 point(s)

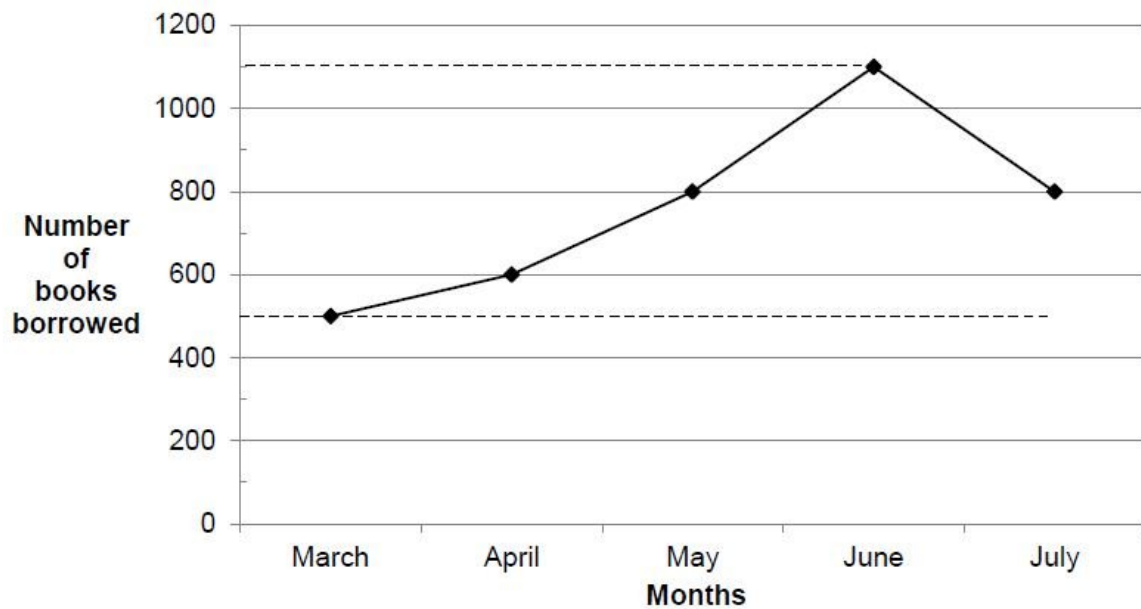
The line graph below shows the number of books borrowed by students in a library. Study it carefully and answer questions 9 and 10.



How many more books were borrowed in July than in March?

2 point(s)

The line graph below shows the number of books borrowed by students in a library. Study it carefully and answer questions 9 and 10.

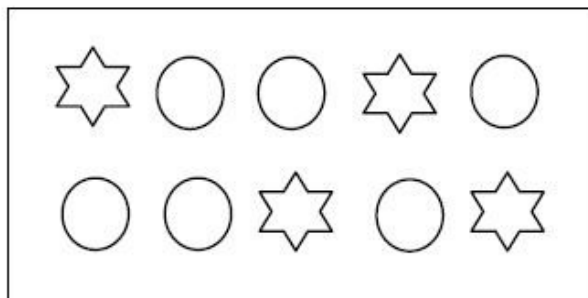


What was the total number of books borrowed from March to June?

2 point(s)

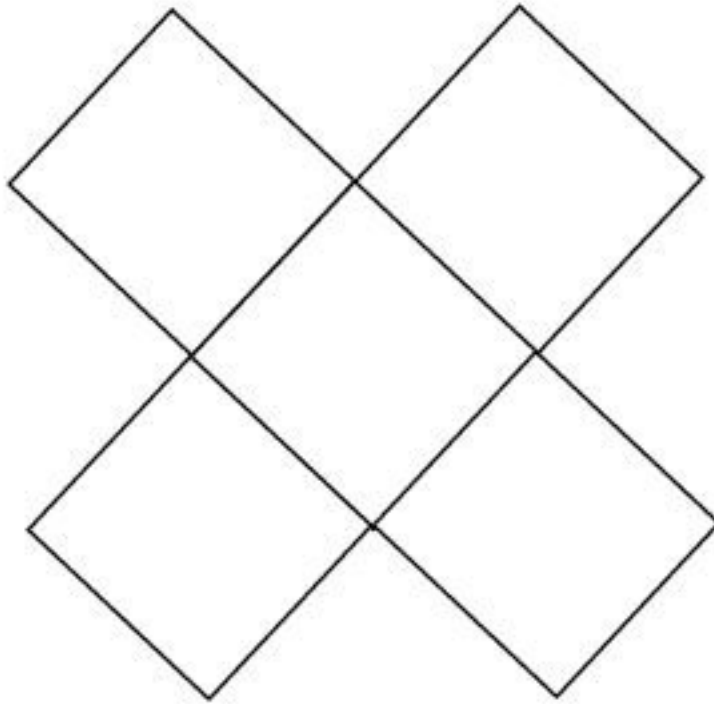
The box below contains a mixture of circles and stars.

$\frac{?}{5}$ of the shapes in the box are . What is the missing number?



2 point(s)

The figure below is made up of 5 identical squares.
The perimeter of the figure is 132 cm.
What is the area of each square?



2 point(s)

Andy bought 4 identical shirts at \$12.80 each and spent the rest of the money on 8 identical pairs of socks. He gave \$100 to the cashier and received 80 cents change. How much did each pair of socks cost?

2 point(s)

Siti is 17 years old and Julia is 5 years old.

How old will Julia be when she is $\frac{3}{5}$ as old as Siti?

2 point(s)

The number of girls is $\frac{3}{7}$ the number of boys at a National Kids' Run competition.

There are 960 more boys than girls. How many children took part in the competition?

2 point(s)

Mrs Thompson baked 175 tarts. She sold $\frac{3}{5}$ of them.

Each tart was sold for \$4. How much money did she collect in total?

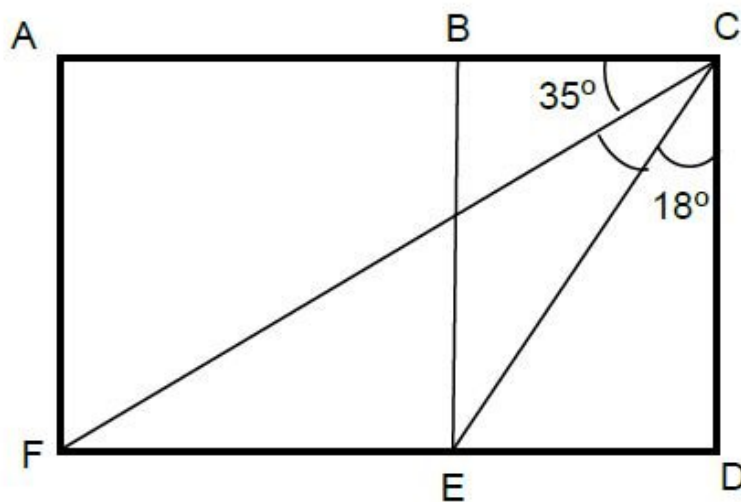
2 point(s)

In the diagram below, ABEF is a square and BCDE is a rectangle.

Use the information and answer questions 17 and 18.

The length of AF is twice the length of BC and $AB = 56$ cm.

$\angle ACF = 35^\circ$ and $\angle DCE = 18^\circ$



Find the length of ED.

2 point(s)

Find $\angle FCE$.

2 point(s)

Jeff is 12 years older than Leon now.

10 years ago, the total age of Jeff and Leon was 78 years.

How old is Leon now?

2 point(s)

Shirley packed 163 lollipops into plastic bags of 7 lollipops. She used the most number of plastic bags possible. She sold each plastic bag of lollipops at \$6 and each remaining lollipop at \$2. How much did she get after selling all the lollipops?

2 point(s)

Melody baked some muffins.

$\frac{2}{7}$ of the muffins were blueberry muffins and the rest were chocolate muffins.

There were 72 more chocolate muffins than blueberry muffins.

How many muffins did she bake altogether?

2 point(s)

A glue stick cost \$1.80.

A pair of scissors cost \$3.20.

Thomas bought an equal number of glue sticks and scissors.

He spent \$25 in all.

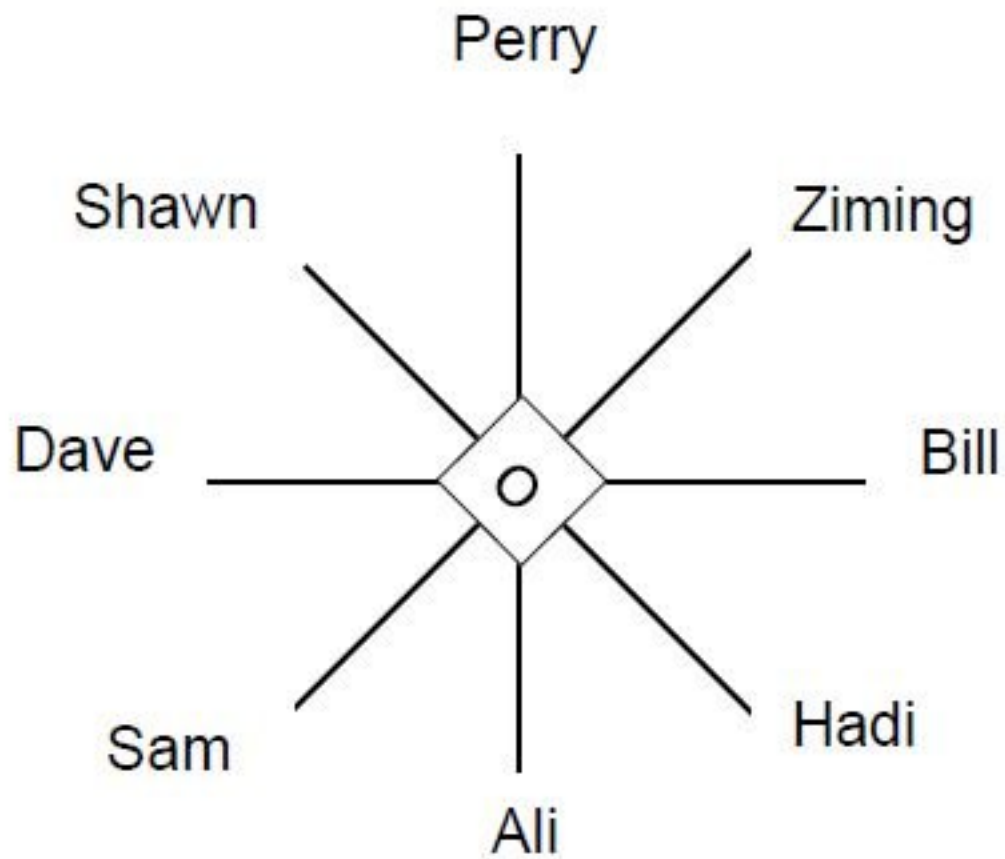
How many glue sticks and scissors did he buy in total?

2 point(s)

Gupta boarded the bus at 11.40 a.m. The bus ride took 38 minutes. After alighting from the bus, he walked for 28 minutes from the bus stop to his school. What time did he reach his school? (Give your answer in 24-hour clock format.)

2 point(s)

The 8-point compass below shows the positions of the houses of 8 children around point O. Roy is at point O facing Perry's house. How many degrees must he turn in a clockwise direction so that he can face Shawn's house?

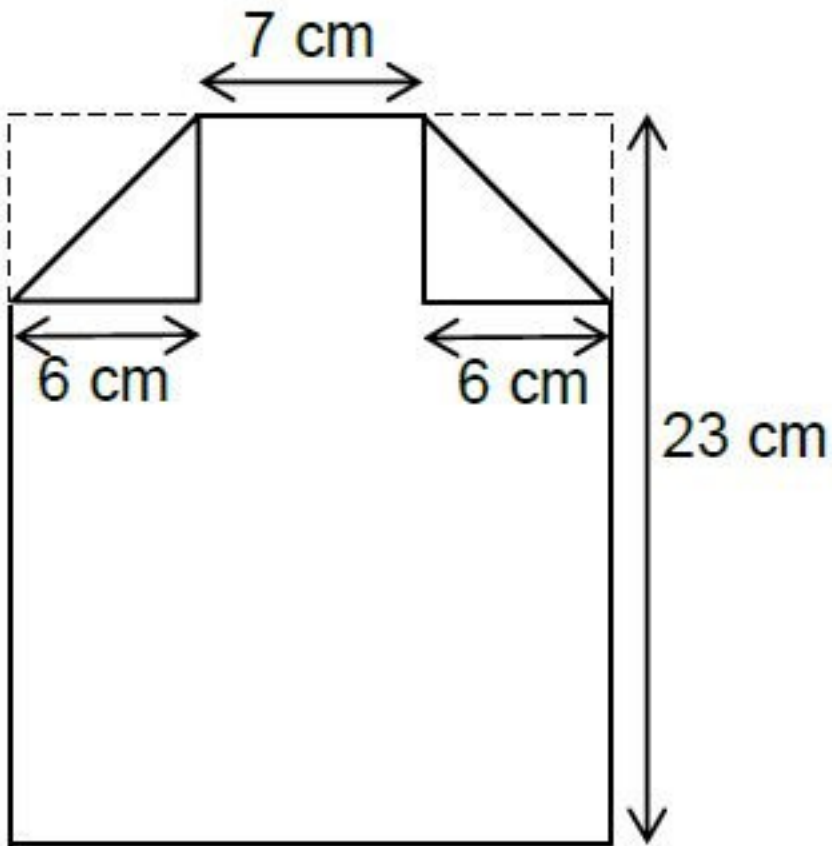


2 point(s)

Tania had 156 stickers and Amelia had 114 stickers. After each of them gave away an equal number of stickers, Tania had 4 times as many stickers as Amelia. How many stickers did each of them give away?

2 point(s)

A rectangular piece of paper is folded as shown below.
What is the area of the piece of paper at first?



2 point(s)

The table below shows the number of boys and girls in four Primary Four classes. The table is incomplete. Answer questions 27 and 28.

Class	Number of boys	Number of girls	Total number of students
4A	22	18	
4B		25	41
4C	13		
4D		20	

There are as many students in Primary 4A as in Primary 4C. How many girls are there in Primary 4C?

2 point(s)

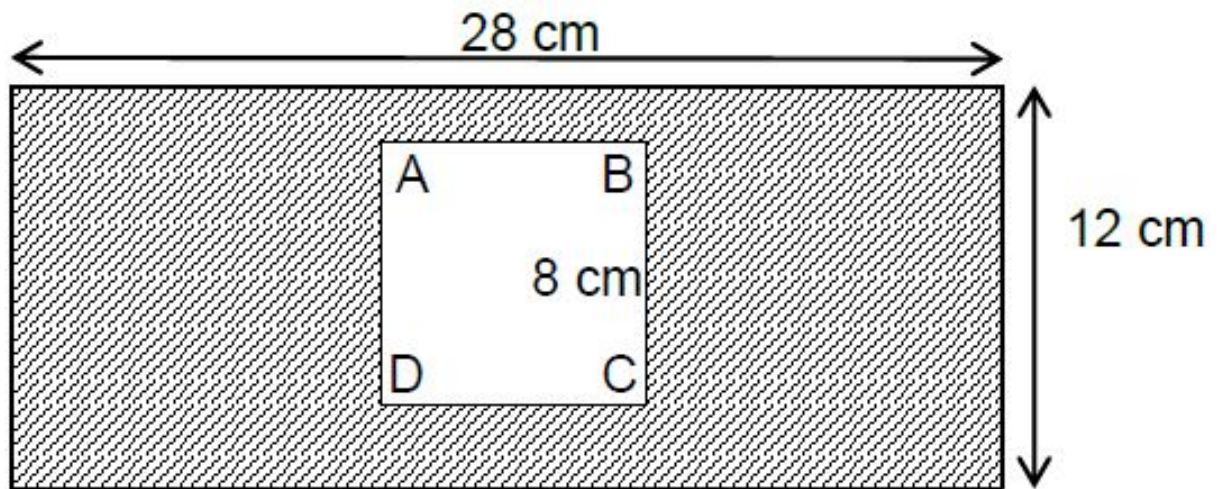
The table below shows the number of boys and girls in four Primary Four classes. The table is incomplete. Answer questions 27 and 28.

Class	Number of boys	Number of girls	Total number of students
4A	22	18	
4B		25	41
4C	13		
4D		20	

The four classes have a total of 160 students. How many students are from the class that has the least number of students?

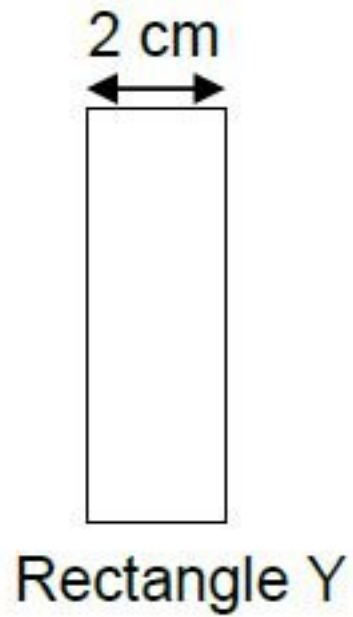
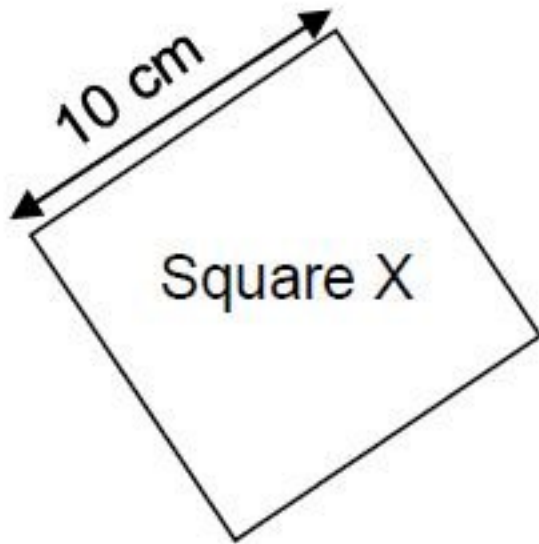
2 point(s)

ABCD is a square of side 8 cm. What is the area of the shaded part in the figure given below?



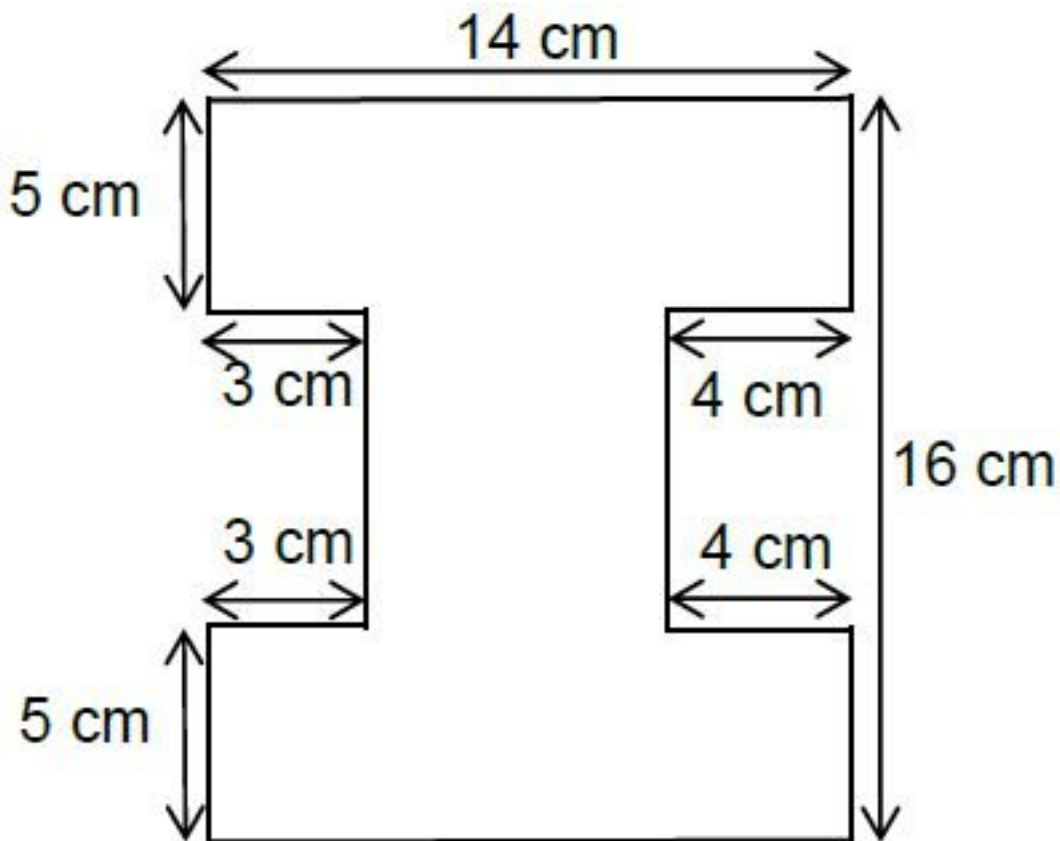
2 point(s)

The figures below show a square and a rectangle. The area of Square X is 4 times the area of Rectangle Y. Find the perimeter of Rectangle Y.



2 point(s)

Find the perimeter of the figure below. (All lines meet at right angles.)



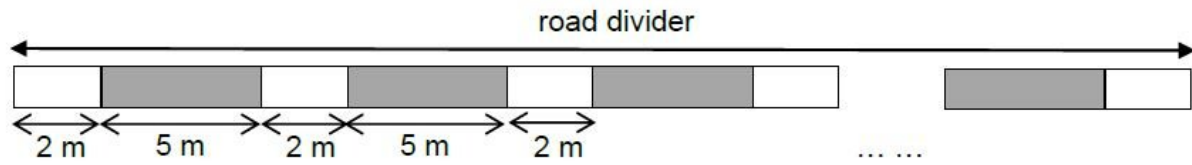
2 point(s)

A bookshop had a total of 160 erasers and pencils.

After 28 erasers and 24 pencils were sold, the number of erasers became thrice the number of pencils. How many pencils did the bookshop have at first?

2 point(s)

A road divider is painted in white and black segments as shown below. If the road divider is 149 m long, how many white segments are there?



2 point(s)

There are 256 balls in a box. $\frac{1}{4}$ of the balls are red and $\frac{5}{8}$ of them are white.
The rest are black. How many more white balls than black balls are there?



2 point(s)

John spilled some paint on his report card. He scored 12 fewer marks in Science than in Mathematics. How many marks did he score for Mathematics?

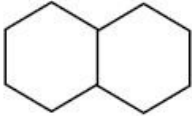
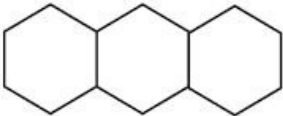
Subject	Score
English	86
Chinese	80
Mathematics	
Science	
Total	342

2 point(s)

Charles bought 9 bags of sweets. Each bag had 48 sweets. He gave away $\frac{5}{6}$ of all the sweets. How many sweets did he have left?

2 point(s)

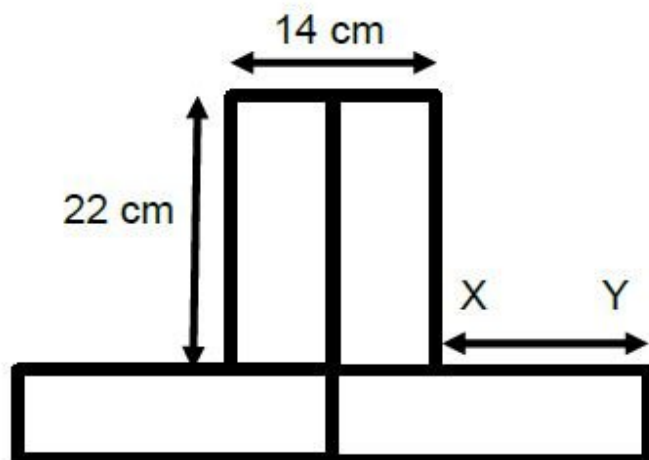
Study the pattern carefully.

		
Pattern 1	Pattern 2	Pattern 3

In a particular patten, 206 sticks are used to form the pattern.
What is the pattern number?

2 point(s)

The figure below is made up of 4 identical rectangles. Find the length of XY.



2 point(s)

Kate and Sam had the same number of books at first.

Kate gave away $\frac{2}{3}$ of her books while Sam gave away $\frac{1}{6}$ of his books.

The number of books that Kate gave away was 63 more than Sam.

Find the number of books that each of them had at first.

2 point(s)

Bob wrote letters in the pattern as shown below.

Z E S T Z E S T Z E S T Z E?

1st 2nd

How many letters 'Z' and 'T' are there if there is a total of 87 letters in the whole series?

4 point(s)

The mass of a container filled with 2 identical ping pong balls was 80 g.
The mass of the same container filled with 3 identical marbles was 220 g.
The mass of each marble was 3 times the mass of each ping pong ball.
What was the mass of 1 ping pong ball?



4 point(s)

Mrs Sim wanted to buy 20 glass bowls but she was short of \$8.

She then bought 19 glass bowls and had \$6 left.

Each glass bowl cost the same. How much money did Mrs Sim have at first?



4 point(s)

Lisa and Max each had a roll of ribbon with the same length. They cut their roll of ribbon into shorter pieces. Each piece of Lisa's ribbon was 6 cm. Each piece of Max's ribbon was 10 cm. After cutting, Lisa had 16 more pieces of ribbon than Max. What was the length of each roll of ribbon?



10 cm



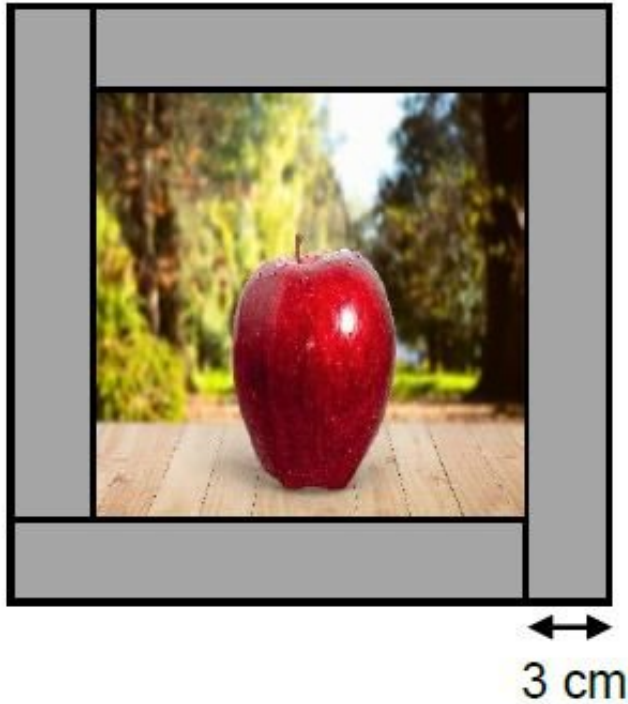
6 cm

4 point(s)

A picture frame is made up of 4 identical rectangular pieces joined together as shown below. The area of each rectangular piece is 69 cm^2 and its breadth is 3 cm .

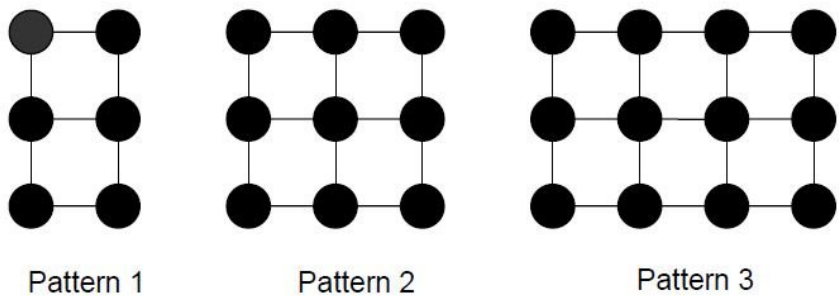
A square picture fits exactly in the centre of the frame.

What is the area of the picture?



4 point(s)

Sally wants to arrange the following pattern with sticks and coins



Pattern Number	Number of coins	Number of sticks	Total number of coins and sticks
1	6	7	13
2	9	12	21
3	12	17	29
4	:	:	:

There is a total of 93 coins and sticks in one of the patterns.
What is the Pattern Number?

Answer Key SINGA 2021 Assessment

Question	Primary 1	Primary 2	Primary 3	Primary 4	Primary 5	Primary 6
1	35	5	7	8098	29	162
2	9	9	903	20	48	56
3	8	642	76	121	220	38
4	3	40	8	0710	25	86
5	22	8	8160	693	44	52
6	16	15	20	1+107	475	18
7	6	72	2	361	200	81
8	37	530	600	30	157	60
9	8	20	80	300	50	30
10	9	32	590	3800	784	337
11	6	9	2923	2	77	240
12	64	6	9647	121	63	36
13	40	640	1500	6	49	45
14	5	24	3	18	192	308
15	96	5	216	2400	8	68
16	6	0.7	200	420	1313	7
17	35	331	113	28	20	343
18	8	27	65	37	315	210
19	15	12	48	43	5	324
20	17	119	15	142	2	19
21	12	90	1820	168	42	123
22	7	50	1450	10	4200	39
23	94	6	21	1246	39	616
24	43	9	3	315	440	13
25	21	622	40	100	10	15
26			304	437	102	300
27			161	27	224	5408
28			15	39	2650	148
29			112	272	7	317
30			101	29	35	5
31			1700	74	45	277
32			748	51	1035	135
33			9	22	1550	25
34			28	128	304	8736
35			129	94	35	51
36			300	72	2000	50
37			54	41	38	8528
38			72	15		
39			26	126		
40			3	43		
41			15	20		
42			107	272		
43			28	240		
44			117	400		
45			1140	11		