Index No. | | | | | | – | |

MINISTRY OF EDUCATION, SINGAPORE
PRIMARY SCHOOL LEAVING EXAMINATION

0008/1 (A)

PSLE
2021

MATHEMATICS
PAPER 1
(BOOKLET A)

Additional materials: Optical Answer Sheet (OAS)

Total Time for Booklets A and B : 1 hour

INSTRUCTIONS TO CANDIDATES

1. Write your Index No. in the boxes at the top right hand corner.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Use a 2B pencil to shade your answers on the Optical Answer Sheet (OAS).
6. The use of calculators is **NOT** allowed.

This booklet consists of 7 printed pages and 1 blank page.

Singapore Examinations and Assessment Board

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.
For each question, four options are given. One of them is the correct answer.
Make your choice (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet.

(20 marks)

---

1 60 000 ÷ 5000 ÷ 400 ÷ 3 = _____

(1) 65 430

(2) 65 403

(3) 65 043

(4) 60 543

2 In 7.654, which digit is in the tenths place?

(1) 7

(2) 6

(3) 5

(4) 4

3 Which number is the smallest?

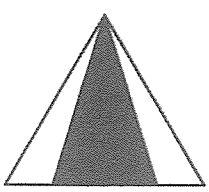
(1) 0.12

(2) 0.21

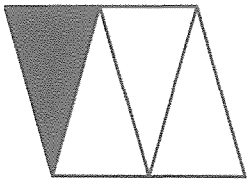
(3) 0.102

(4) 0.201

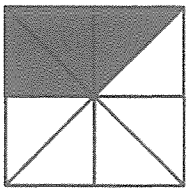
4 Which of the following shows $\frac{1}{3}$ of the figure shaded?



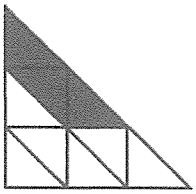
(1)



(2)

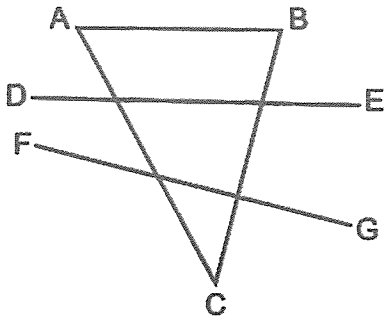


(3)



(4)

5 Which two lines are perpendicular to each other?



(1) AB and BC

(2) AB and DE

(3) BC and DE

(4) BC and FG

6 Arrange these fractions from the largest to the smallest.

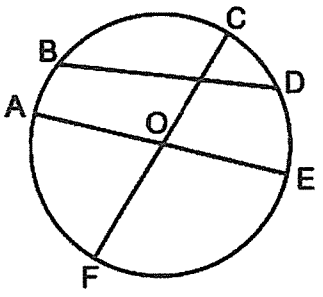
$\frac{9}{8}$, $\frac{5}{4}$, $1\frac{1}{9}$

	Largest		Smallest
(1)	$\frac{5}{4}$,	$\frac{9}{8}$,	$1\frac{1}{9}$
(2)	$1\frac{1}{9}$,	$\frac{9}{8}$,	$\frac{5}{4}$
(3)	$\frac{9}{8}$,	$1\frac{1}{9}$,	$\frac{5}{4}$
(4)	$\frac{5}{4}$,	$1\frac{1}{9}$,	$\frac{9}{8}$

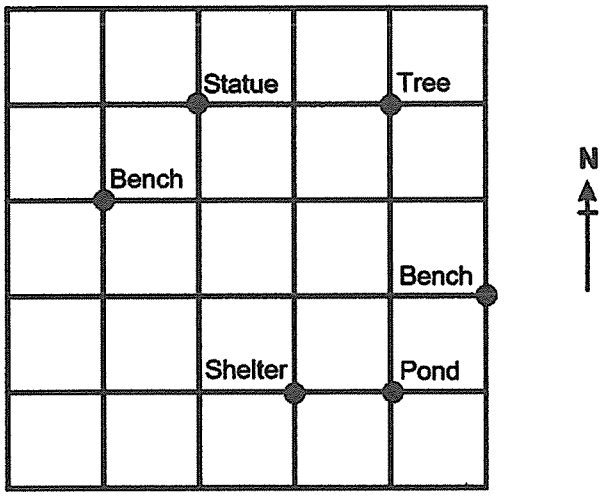
(Go on to the next page)

7 The circle has centre O.
AOE and COF are straight lines. Which pair of lines shows its radius and diameter?

	Radius	Diameter
(1)	AE	OC
(2)	AO	BD
(3)	BD	AE
(4)	OE	FC



8 The plan of a park is shown in the square grid.



Mandy is in the park. She stands at a location south-east of the statue and west of a bench. In what direction is the shelter from Mandy?

(1) North

(2) North-east

(3) South

(4) South-west

9 A file costs \$3 more than a pen. The total cost of 5 such files is \$$y$.
Find the cost of a pen.

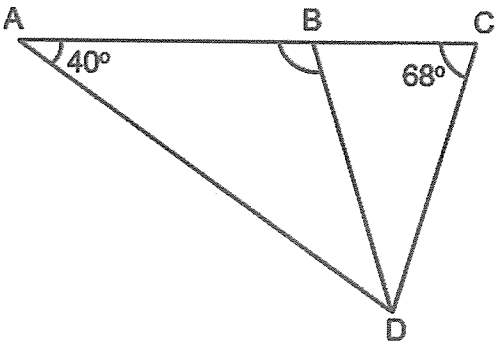
(1) $\$(5y-3)$

(2) $\$(\frac{y-3}{5})$

(3) $\$(\frac{y}{5}-3)$

(4) $\$(\frac{y}{5}+3)$

10 ABC is a straight line and $\angle BDA = \angle CDB$.



Find $\angle ABD$.

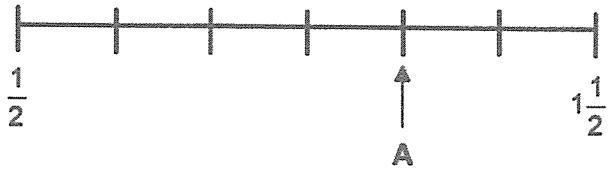
(1) 100°

(2) 104°

(3) 112°

(4) 140°

11 In the number line, what is the value represented by A?



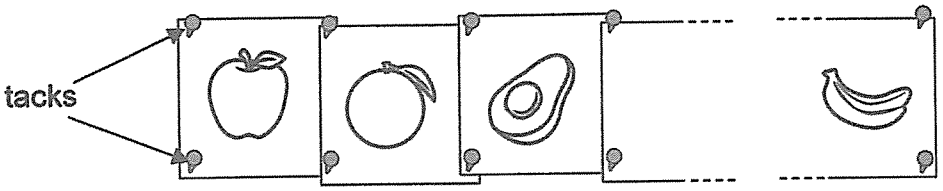
(1) $\frac{2}{3}$

(2) $1\frac{1}{4}$

(3) $1\frac{1}{6}$

(4) $1\frac{3}{10}$

12 Bala used 44 tacks to pin his drawings side by side onto a board as shown.



How many drawings did he pin altogether?

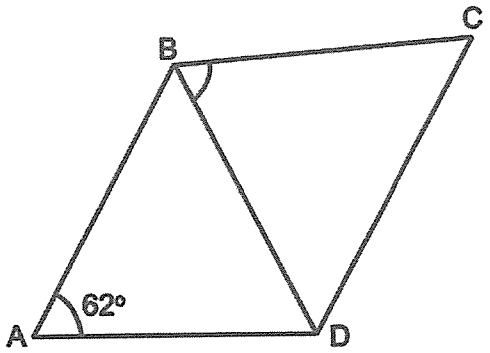
(1) 11

(2) 20

(3) 21

(4) 22

13 ABCD is a trapezium with AB parallel to DC and AB = BC = BD.



Find ∠DBC.

(1) 68°

(2) 62°

(3) 59°

(4) 56°

14 Tim had 13 more two-dollar notes than five-dollar notes at first. He exchanged $20 worth of five-dollar notes for two-dollar notes. How many more two-dollar notes than five-dollar notes did Tim have after the exchange?

(1) 17

(2) 19

(3) 23

(4) 27

15 A box contained brown balls and green balls. 40% of the balls were green. After some yellow balls were added to the box, 26% of the balls were green. What percentage of the balls in the box were yellow?

(1) 14%

(2) 34%

(3) 35%

(4) 39%

(Go on to Booklet B)

Questions **16** to **20** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (5 marks)

Do not write in this space

16 Find the value of 565 + 39

Ans: _____

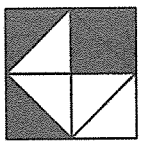
17 Find the value of 10.12 – 8.99

Ans: _____

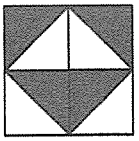
18 Find the value of 7 ÷ 8. Express your answer as a decimal.

Ans: _____

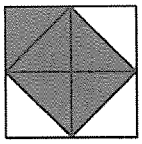
19 Squares P, Q and R are each made up of 8 identical triangles.



P



Q



R

Name the squares with a line of symmetry.

Ans: _____

20 Aishah paid $15 for 20 stickers. What was the cost of each sticker in cents?

Ans: _____ ¢

Questions **21** to **30** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

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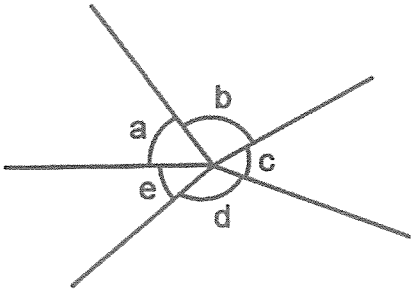
21 **(a)** Find the value of $\frac{2}{3} \div \frac{1}{5}$

(b) Express 1.14 as a mixed number in the simplest form.

Ans: (a) _____

(b) _____

22



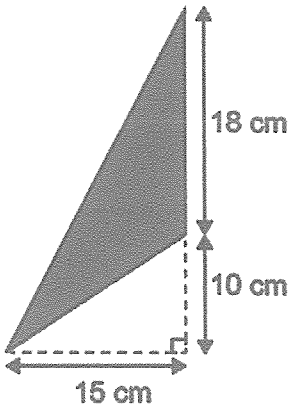
(a) Name the smallest angle.

(b) Name the two angles that are greater than 90°.

Ans: (a) _____

(b) _____ and _____

23 Find the area of the shaded triangle.



Ans: _____ cm^2

(Go on to the next page)

24 The table shows the temperatures of cities A, B, C and D.

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City	Lowest Temperature (°C)	Highest Temperature (°C)
A	10	17
B	16	31
C	19	33
D	5	26

(a) When Faizal was at some of these cities, the temperature was 12°C. Name the cities.

(b) Name the city with the largest difference in temperatures. Find this difference.

Ans: (a) Cities _____

(b) City _____

Difference: _____ °C

---

25 Mrs Tan had a bottle of oil. She used an equal amount of oil each day. At the end of the 4th day, she had 880 ml of oil left. At the end of the 6th day, she had half the bottle of oil left. How many litres of oil were there in the bottle at first?

Ans: _____ ℓ

26 Find the value of the breadth of the rectangle.

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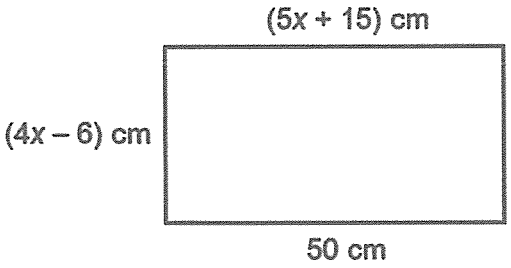
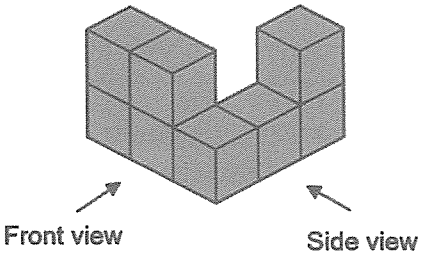
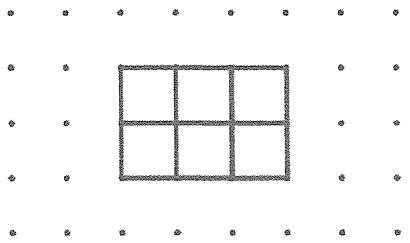


Ans: _____ cm

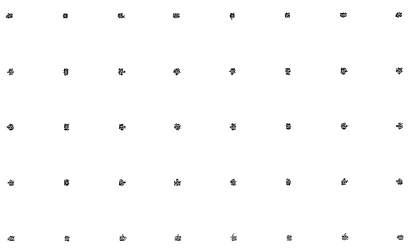
27 Usha builds a solid using 8 unit cubes. The front view is shown.



Front view



(a) Draw the side view on the grid.



(b) Find the greatest number of unit cubes Usha can add to the solid without changing the front view and side view.

Ans: (b) _____

(Go on to the next page)

28 A parallelogram ABCD is drawn on a square grid.

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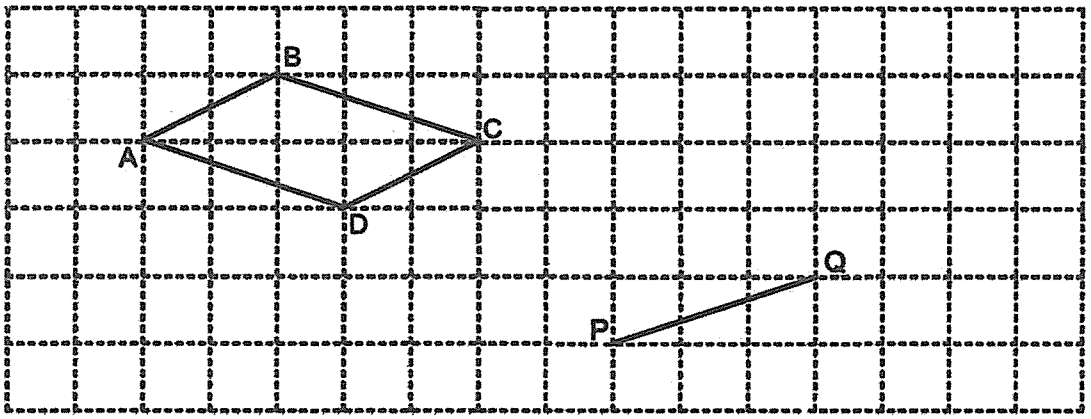

(a) Using the line PQ, draw triangle PQR such that it has the same perimeter as ABCD and PQ = QR.

(b) Find the ratio of area of ABCD to the area of PQR.

Ans: (b) _____

29 Susan had a box of blue beads and red beads in the ratio 7 : 13. She removed an equal number of blue beads and red beads from the box. The ratio of the number of blue beads and red beads left in the box became 1 : 3. What percentage of the beads were left in the box?

Ans: _____ %

30 In Figure 1, the total perimeter of 4 rectangles R and square S is 144 cm. They are joined to form a large square in Figure 2 which has a perimeter of 56 cm.

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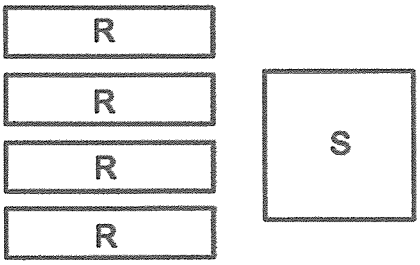

Figure 1

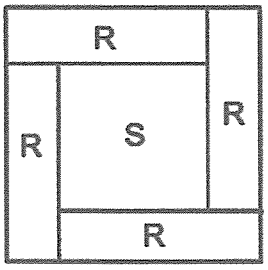

Figure 2

Find the length of one side of square S.

Ans: _____ cm

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MINISTRY OF EDUCATION, SINGAPORE
PRIMARY SCHOOL LEAVING EXAMINATION

0008/2

PSLE
2021

MATHEMATICS
PAPER 2

Time : 1 h 30 min

INSTRUCTIONS TO CANDIDATES

1. Write your Index No. in the boxes at the top right hand corner.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers in this booklet.
6. The use of an approved calculator is allowed.

FOR MARKERS' USE

Question No.	Marker ID	
	Marker 1	Marker 2
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		

FOR CM / ACM / TL's USE

Supervisor ID / Signature

FOR RECORDER'S USE

Total Mark	Max Mark	Recorder ID / Signature
	55	

This booklet consists of 15 printed pages and 1 blank page.

Singapore Examinations and Assessment Board

Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space

1 Use all the digits 5, 6, 0, 9 to form

(a) the largest 4-digit odd number.

(b) the number closest to 6000.

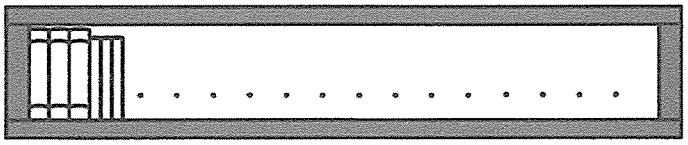
Ans: (a)_____

(b)_____

2 Cupcakes are sold in boxes of 6, 12 or 24. Sam buys 90 cupcakes. What is the least number of boxes Sam buys?

Ans: _____

3 A shelf can be packed from end to end with 30 large books or 45 small books. Kevin already packed the shelf with 3 large books and 23 small books. At most, how many more large books can Kevin pack the shelf with?

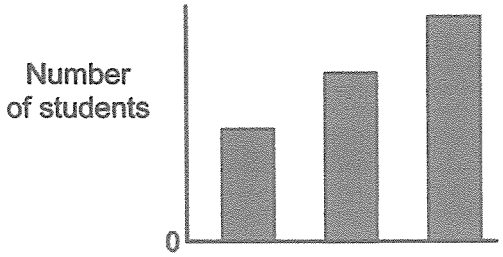


Ans: _____

Do not write in this space

4 Students played only one sport – basketball, football or handball. $\frac{1}{3}$ of them played football. The number who played handball was $\frac{1}{2}$ of the number who played basketball.

(a) The bar graph represents the number of students who played each sport. Label the bar graph by writing **B** for basketball, **F** for football and **H** for handball in the blanks below.

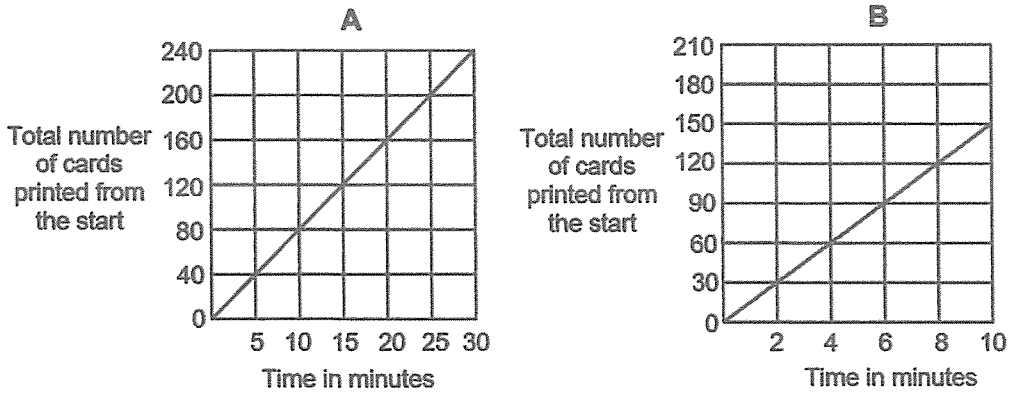


Ans: (a) ____ ____ ____

(b) What fraction of the students played handball?

Ans: (b) _____

5 The graphs show the total number of cards machines A and B printed from the start. Both machines started printing at the same time.



(a) How many more cards did B print than A in 5 minutes?

(b) Both machines did not change their rates of printing throughout. When A had printed 200 cards, how many cards had B printed?

Ans: (a)_____

(b)_____

(Go on to the next page)

For questions **6** to **17**, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

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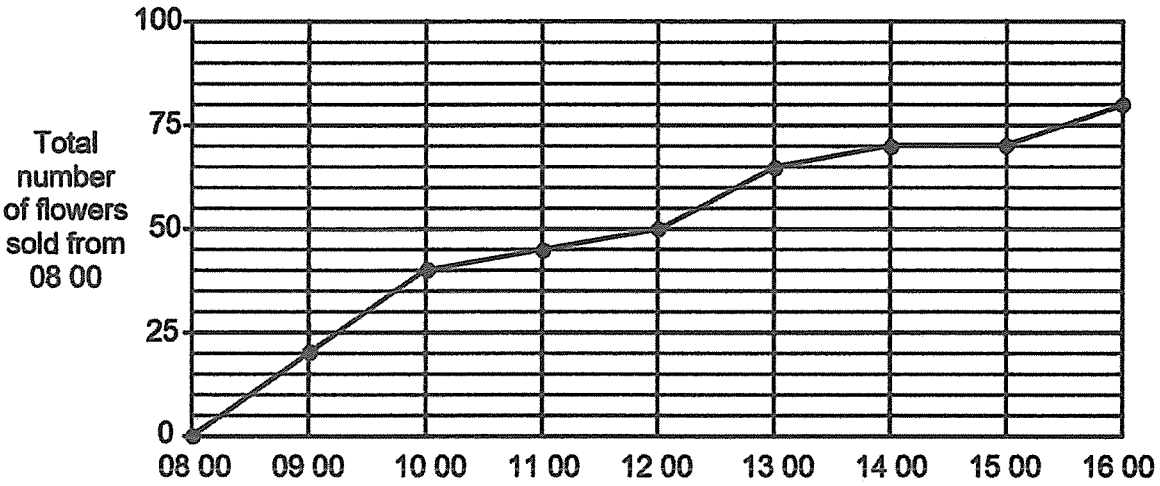
6 A florist sold flowers from 08 00 to 16 00 last Sunday. The line graph shows the total number of flowers sold from 08 00.



(a) At what time had the florist sold half the total number of flowers sold that day?

(b) During which one-hour interval was there no flower sold?

(c) What was the average number of flowers sold per hour from 11 00 to 16 00?

Ans: (a)_____ [1]

(b)_____ to _____ [1]

(c)_____ [1]

7 ABCD is a rhombus and EFG is an equilateral triangle. DGH is a straight line.

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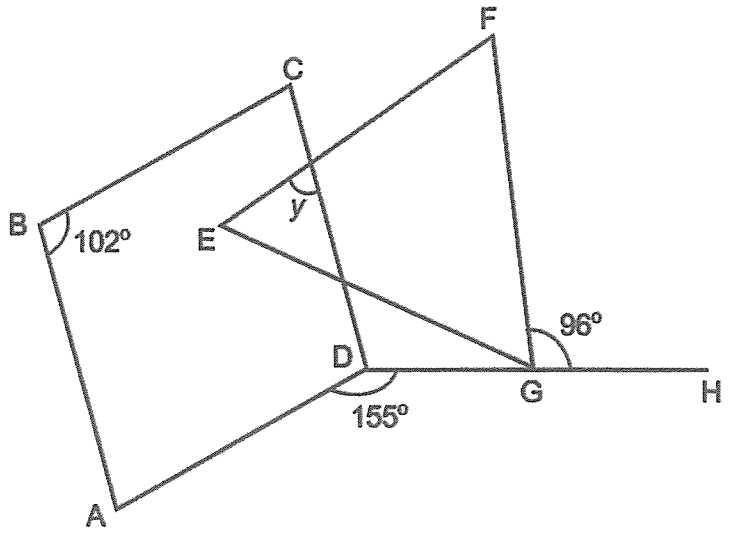

Find $\angle y$.

Ans: _____ [3]

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8

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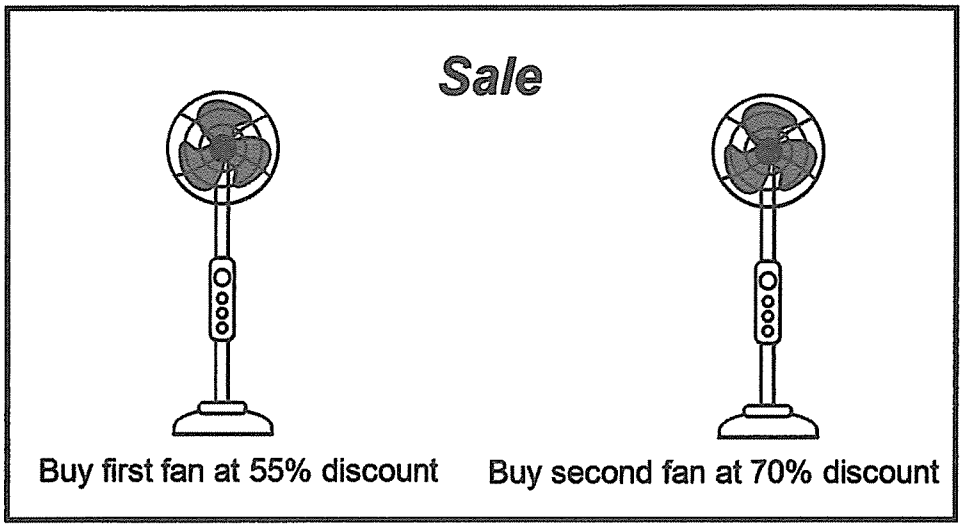

Xinyi bought 2 fans of the same model at a sale. She paid $127.50 for them.

(a) What was the price of a fan before discount?

(b) Nick also bought 2 such fans at the price before discount. How much more did Nick pay than Xinyi?

Ans: (a)_____ [2]

(b)_____ [1]

9 The bar graph shows the number of files sold from January to March. The number of files sold is not shown on the scale.

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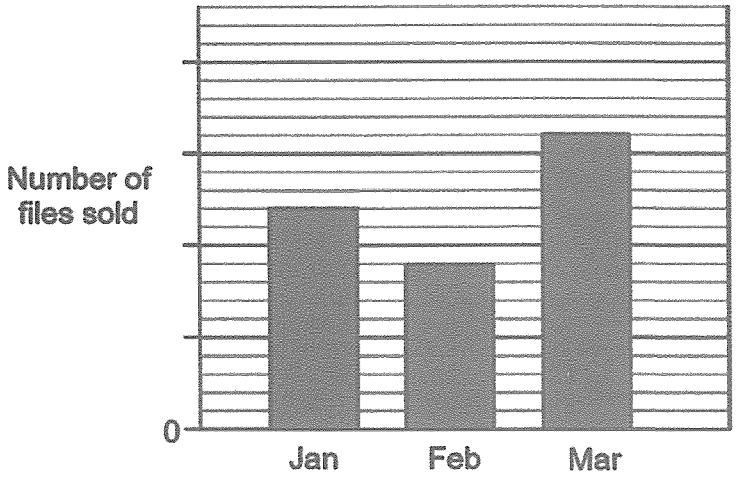

(a) What was the percentage decrease in the number of files sold from January to February?

(b) There were 144 more files sold in March than in January.

(i) How many files were sold in March?

(ii) The average number of files sold from January to May was 435. What was the average number of files sold in April and May?

Ans: (a)_____ [1]

(b) (i)_____ [1]

(ii)_____ [2]

(Go on to the next page)

10 Alan, Ben and Chandra shared the cost of a gift.
The ratio of Alan's share to the total share of Ben and Chandra was 1 : 3.
The ratio of Ben's share to the total share of Alan and Chandra was 1 : 5.
Chandra's share was $80 more than Ben's share.
How much did the gift cost?

Do not write in this space

Ans: _____ [3]

11 The number of boys and girls taking part in a quiz are in the ratio 7 : 4. These students are put into two groups. 30% of the boys and 60% of the girls are in Group P. The rest of the students are in Group Q.

Do not write in this space

(a) What is the ratio of the number of students in Group P to Group Q? Give your answer in the simplest form.

(b) The number of boys in Group P is fewer than 70. What is the largest possible total number of students taking part in the quiz?

Ans: (a)_____ [2]

(b)_____ [1]

(Go on to the next page)

12 The figure is made up of three rectangles. A straight line drawn across the rectangles, divides the figure into two parts: shaded and unshaded.

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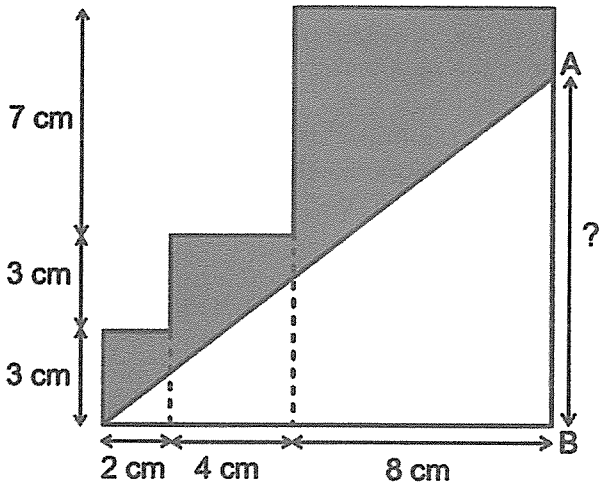

(a) The perimeter of the shaded part is 4 cm longer than the perimeter of the unshaded part. What is the length of AB?

(b) What is the area of the shaded part?

Ans: (a)_____ [2]

(b)_____ [2]

13 ABCD is a trapezium with AB parallel to DC. AFB and EFC are straight lines and AE = EB. ∠EBC = 94°.

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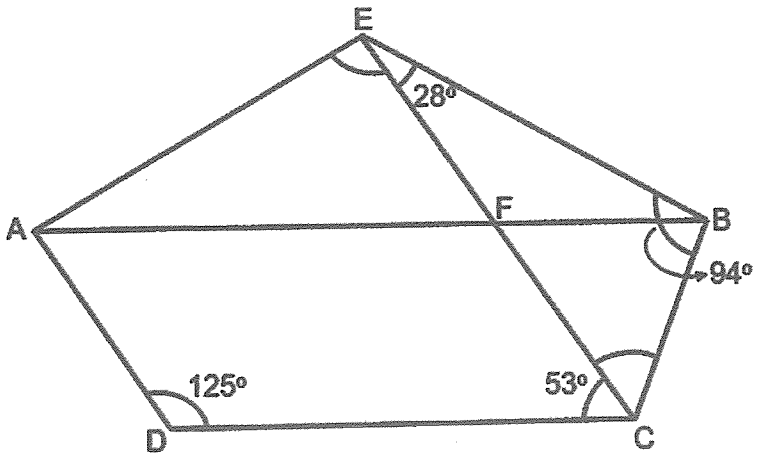

(a) Find ∠BCE.

(b) Find ∠AEC.

Ans: (a)_____ [1]

(b)_____ [2]

(c) Circle the words that describe AFCD in the statement:

Since AF (**is / is not**) parallel to DC and AD (**is / is not**) parallel to FC,
AFCD is a (**parallelogram / trapezium**).

[1]

(Go on to the next page)

14 The table shows the prices of tickets for a concert.

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Type	Age	Price per ticket
Adult	Below 60 years	$16
	60 years and above	$11
Child	Below 16 years	$7

The number of adult tickets sold was 5 times the number of child tickets sold. $\frac{5}{8}$ of the adult tickets sold were for adults aged below 60 years. A total of $5589 was collected from the sale of tickets.

(a) What fraction of the tickets sold were for adults aged 60 years and above? Give your answer in the simplest form.

(b) What was the total number of tickets sold?

Ans: (a) _____ [1]

(b) _____ [3]

15 Helen and Ivan have the same total number of coins. Helen has a number of fifty-cent coins and 64 twenty-cent coins. The total mass of her coins is 1.134 kg. Ivan has a number of fifty-cent coins and 104 twenty-cent coins.

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(a) Who has more money in coins? How much more?

(b) Each fifty-cent coin is 2.7 g heavier than each twenty-cent coin. What is the total mass of Ivan's coins in kg?

Ans: (a) Name of child: _____

Amount: _____ [2]

(b) _____ [2]

(Go on to the next page)

16 A small circle with centre O has been cut from a circular piece of cardboard with the same centre. The radius of the small circle is 8 cm.

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The remaining cardboard is then cut into four equal parts along the dotted lines as shown in Figure 1. The four parts are rearranged to form a new shape in Figure 2.

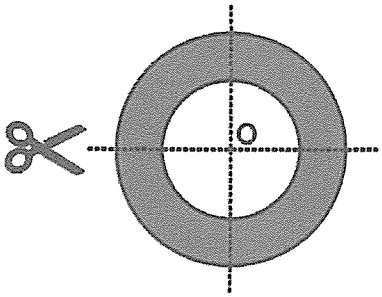

Figure 1

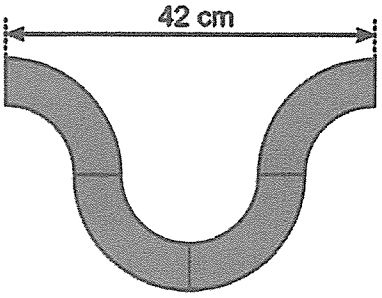

Figure 2 (new shape)

(a) Find the area of the new shape.

(b) Find the perimeter of the new shape.

(Take $\pi = 3.14$)

Ans: (a) _____ [3]

(b) _____ [2]

17 The figure shows taps A and B and an empty tank.

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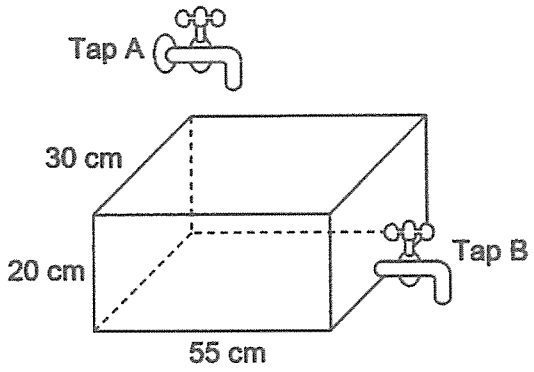

At 2 p.m., tap A was turned on. Water flowed into the tank from tap A at a rate of 4.2 litres per minute. After 5 minutes, tap B was turned on.

At 2.15 p.m., the tank was half filled with water.

(a) How many litres of water flowed out of tap B in 1 minute?

(b) At 2.30 p.m., what fraction of the tank was filled with water?

Ans: (a) _____ [3]

(b) _____ [2]

End of Paper

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