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Anglo-Chinese School (Junior)/
Anglo-Chinese School (Primary)

COMBINED PRELIMINARY EXAMINATION (2020)
PRIMARY 6

MATHEMATICS

PAPER 1
Booklet A

Friday **21 August 2020** **1 h**

INSTRUCTIONS TO PUPILS

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Shade your answers in the Optical Answer Sheet (OAS) provided.
5. The use of calculators is **NOT** allowed.

Name : _____ ( )

Class : 6 ( )

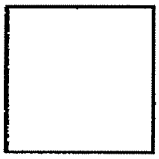
This question paper consists of 8 printed pages. (Inclusive of cover page)

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 (OAS). (20 marks)

1. How many ten thousands are there in 4 710 000?

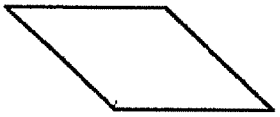
   1) 47
   2) 471
   3) 4710
   4) 47100

2. How many of the following figures have at least one line of symmetry?

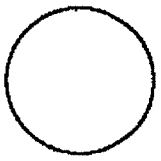


Square

Parallelogram



Rhombus



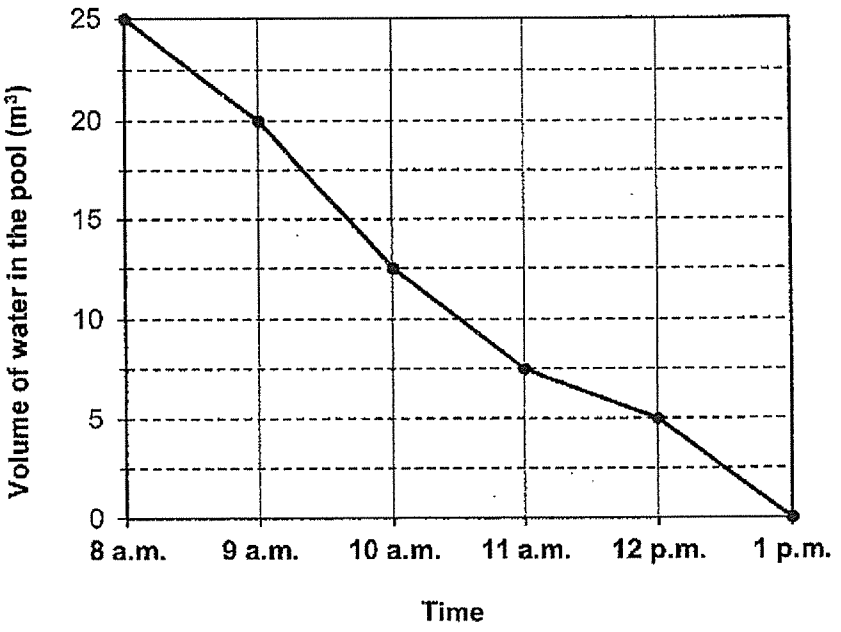
Circle

   1) 1
   2) 2
   3) 3
   4) 4

3. Express $6\frac{2}{500}$ as a decimal.

   1) 6.2
   2) 6.4
   3) 6.04
   4) 6.004

4. At 8 a.m., a swimming pool was completely filled with water. From 8 a.m. to 1 p.m., water was drained from the swimming pool. The line graph below shows the volume of water in the swimming pool from 8 a.m. to 1 p.m.



During which one-hour period was the decrease in the volume of water the greatest?

1) Between 8 a.m. and 9 a.m.
2) Between 9 a.m. and 10 a.m.
3) Between 10 a.m. and 11 a.m.
4) Between 11 a.m. and 12 p.m.

5. The table below shows the number of 'Arts Fiesta' tickets sold over a period of five days. The total number of tickets sold was 1380. What is the average number of tickets sold on Wednesday, Thursday and Friday?

Days	Tickets sold
Monday	325
Tuesday	380
Wednesday	?
Thursday	?
Friday	?

1) 205
2) 225
3) 675
4) 705

6. Isaac ran round a circular track 3 times for his training. The radius of the track was 56 m. How far did he run? (Take $\pi = \frac{22}{7}$)

1) 168 m
2) 352 m
3) 528 m
4) 1056 m

7. A tank measured 40 cm by 15 cm by 30 cm is half filled with water. Find the volume of water in the tank.

1) 9 ℓ
2) 18 ℓ
3) 9000 ℓ
4) 18000 ℓ

8. Arrange the following fractions from the smallest to the largest:

$1\frac{1}{6}$, $\frac{5}{4}$, $\frac{10}{9}$

1) $1\frac{1}{6}$, $\frac{10}{9}$, $\frac{5}{4}$

2) $\frac{5}{4}$, $\frac{10}{9}$, $1\frac{1}{6}$

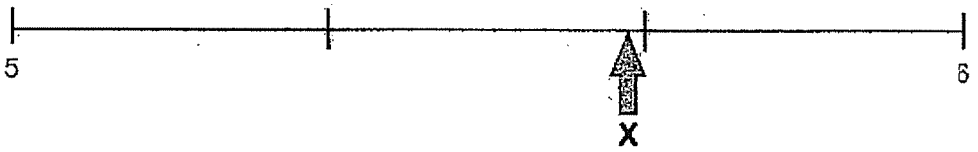
3) $\frac{5}{4}$, $1\frac{1}{6}$, $\frac{10}{9}$

4) $\frac{10}{9}$, $1\frac{1}{6}$, $\frac{5}{4}$

9. One of the angles of a trapezium is 55°. Which of the following are possible values of the remaining angles?

1) 115°, 55° and 125°
2) 115°, 55° and 65°
3) 115°, 55° and 115°
4) 115°, 65° and 125°

10. In the number line shown below, which value is closest to the reading at **X**?

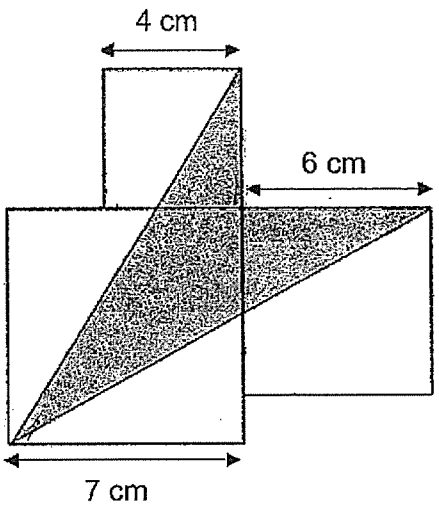


1) 5.190
2) 5.495
3) 5.590
4) 5.725

11. Mr Lee had some magazines. He sold 315 magazines from Monday to Friday. He sold $\frac{2}{5}$ of the remaining magazines on Saturday and Sunday. The number of magazines left was $\frac{1}{4}$ of what he had at first. How many magazines did he have at first?

1) 540
2) 405
3) 90
4) 45

12. The figure below is made up of 3 squares. Find the shaded area.



1) 31 cm^2
2) 35 cm^2
3) 36 cm^2
4) 48 cm^2

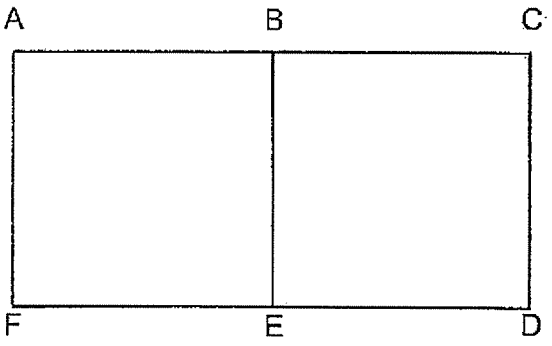
Machine A prints 16 pages more than Machine B in every minute. Machine A and Machine B print a total of 608 pages in 4 minutes. At this rate, how many pages does Machine A print in 1 minute?

1) 68
2) 74
3) 84
4) 90

14. A box of cookies was shared between Jesse and Linn in the ratio of 7 : 4. Linn then decided to share her portion of cookies with her younger brother in the ratio 5 : 3 while Jesse shared her portion of the cookies with her elder sister in the ratio 4 : 3. Among the four of them, the smallest portion of cookies was 12 pieces. How many pieces of cookies were there in the box at first?

1) 33
2) 44
3) 66
4) 88

15. The map below shows the locations of 6 places, A, B, C, D, E and F. ABEF and BCDE are squares. Location C is south of location E. Which of the following location is north-east of B?



1) A
2) C
3) D
4) F

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Anglo-Chinese School (Junior)/
Anglo-Chinese School (Primary)

COMBINED PRELIMINARY EXAMINATION (2020)
PRIMARY 6

MATHEMATICS

PAPER 1
Booklet B

Friday **21 August 2020** **1 h**

INSTRUCTIONS TO PUPILS
1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.
5. The use of calculators is **NOT** allowed.

Name : _____ ( )

Class : 6.( )

This question paper consists of 10 printed pages. (Inclusive of cover page)

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)

16. In a sports race, Ethan had to complete swimming, cycling and running. The table below shows the time taken for each sports.

Segments	Time Taken (min)
Swimming	39
Cycling	58
Running	46

What was the total time Ethan took to complete the 3 sports? Give your answer in hours and minutes.

Answer: _____h _____min

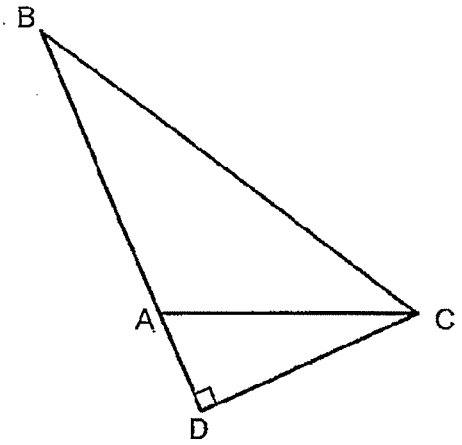
17. Arrange the following from the lightest to the heaviest.

6.35 kg	6 kg 35 g	$6\frac{1}{3}$ kg

Answer: _____, _____, _____

(lightest) (heaviest)

18. In the figure below, BD is 20 cm and CD is 8 cm. AD is $\frac{1}{4}$ of BD. Find the area of triangle ABC.



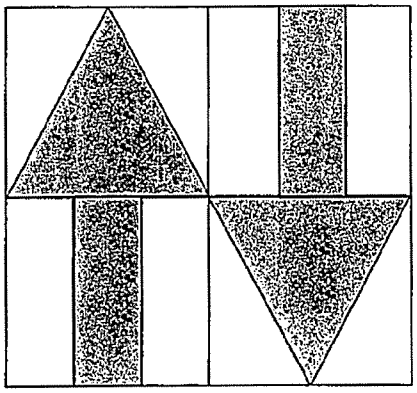
Answer: _____ cm²

19. What is the fraction exactly between $\frac{2}{7}$ and $\frac{2}{5}$?

Answer: _____

 Sub-Total : [ ]

20. The figure is made up of 4 squares. Two of the squares are divided equally into 3 rectangles. What fraction of the figure is shaded?



Answer: _____

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)

---

21. Find the value of $83 - \frac{74 - 6y}{y} - y$ when $y = 4$.

Answer: _____

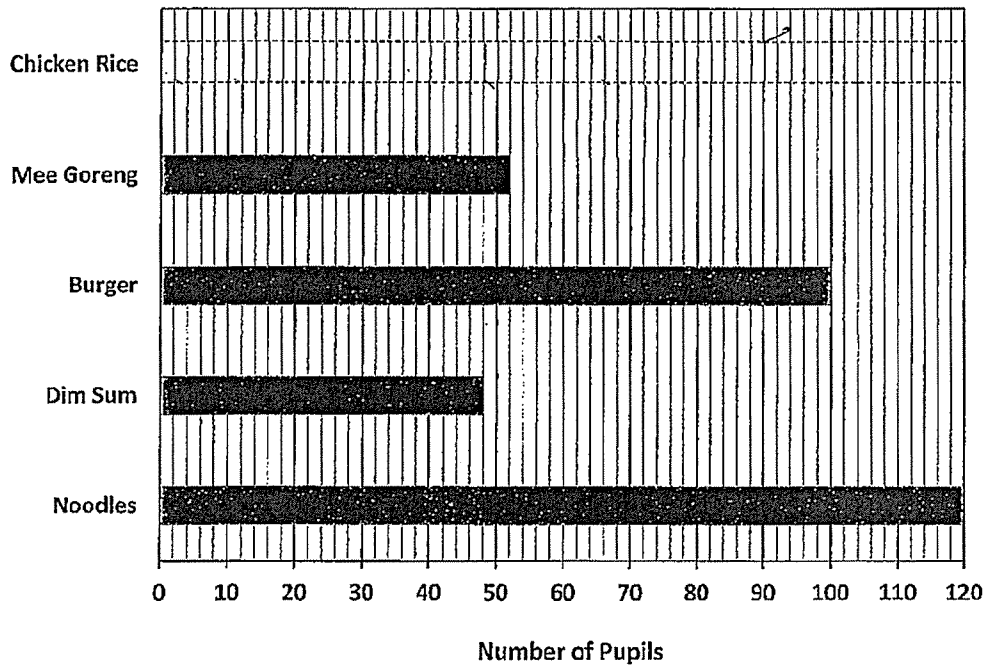
22. The table below shows the number of hours that a group of 24 students spent on building a model in a day.

Number of hours spent by each pupil	0	3	4	5
Number of pupils	2	9	8	5

What is the average number of hours each student spent on building the model each day?

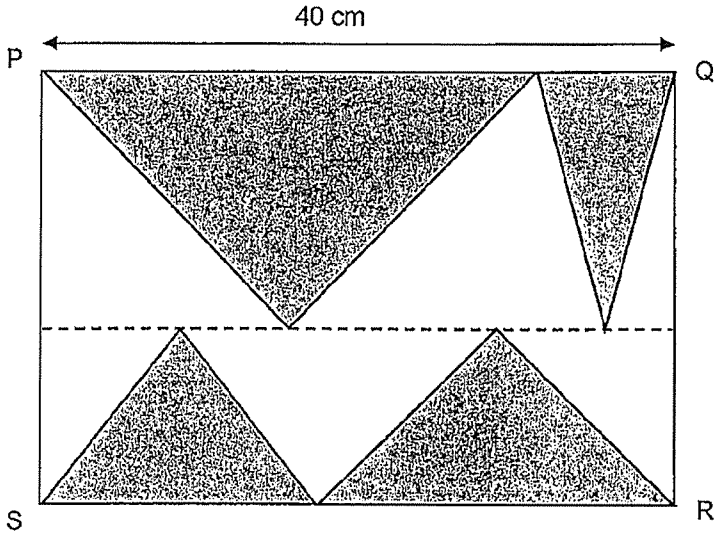
Answer: _____h

23. The bar graph shows the type of food consumed by a group of pupils in a school canteen. The bar that shows the number of pupils who consumed chicken rice has not been drawn.



20% of the pupils in the canteen consumed chicken rice. Draw the bar that shows the number of pupils who consumed chicken rice in the graph above.

24. The figure below shows 4 shaded triangles inside rectangle PQRS. The dotted line is parallel to PQ and SR. The total shaded area is 500 cm^2. Find the length of QR.

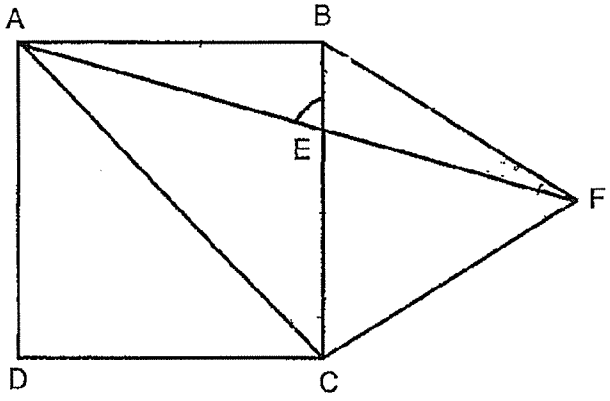


Answer: _____cm

25. Tina packed some gift bags for charity drive. She packed 7 bottles of hand sanitizers, 4 masks and 2 granola bars into every gift bag. She used 117 more hand sanitizers than masks for all her gift bags. How many granola bars did Tina pack altogether?

Answer: _____

26. In the figure below, not drawn to scale, ABCD is a square and BCF is an equilateral triangle. AEF is a straight line. Find $\angle AEB$.

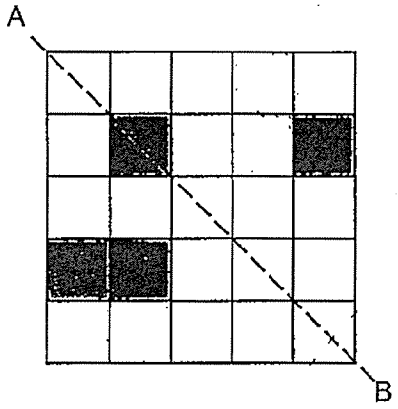


Answer: _____°

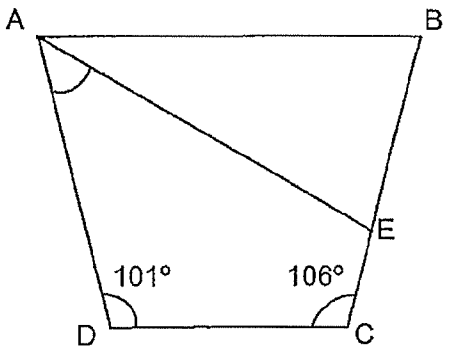
27. There were 150 members in a club in March. This was an increase of 20% when compared to February. In April, only 115 members remained in the club. What is the percentage decrease in the number of members in April compared to February?

Answer: _____%

28. In the figure below, shade the minimum additional number of squares so that AB is the line of symmetry for the figure.



29. ABCD is a trapezium. $\angle BCD = 106°$ and $\angle ADC = 101°$. AB = AE. Find $\angle DAE$.



Answer: _____ °

Sub-Total : [ ]

30. Kelly has $38. What is the greatest number of muffins she can buy?

First 3 muffins	$3.20 each
Additional muffin	$3 each

Answer: _____

End of Paper 1

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Anglo-Chinese School (Junior)/
Anglo-Chinese School (Primary)

COMBINED PRELIMINARY EXAMINATION (2020)
PRIMARY 6

MATHEMATICS

PAPER 1
Booklet B

Friday **21 August 2020** **1 h**

INSTRUCTIONS TO PUPILS
1. Do not turn over this page until you are told to do so.
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3. Answer all questions.
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Name : _____ **(** **)**

Class : 6.(**)**

This question paper consists of 10 printed pages. (Inclusive of cover page)

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)

16. In a sports race, Ethan had to complete swimming, cycling and running. The table below shows the time taken for each sports.

Segments	Time Taken (min)
Swimming	39
Cycling	58
Running	46

What was the total time Ethan took to complete the 3 sports? Give your answer in hours and minutes.

Answer: _____h _____min

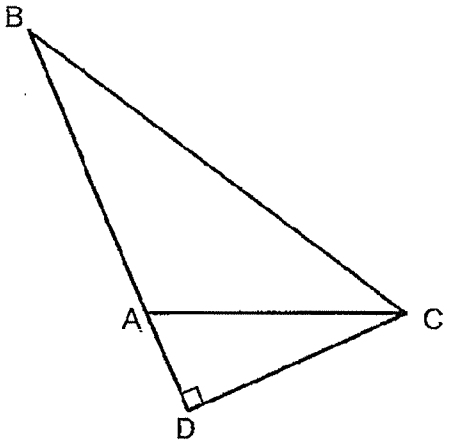
17. Arrange the following from the lightest to the heaviest.

6.35 kg	6 kg 35 g	$6\frac{1}{3}$ kg

Answer: _____, _____, _____

(lightest) (heaviest)

18. In the figure below, BD is 20 cm and CD is 8 cm. AD is $\frac{1}{4}$ of BD. Find the area of triangle ABC.



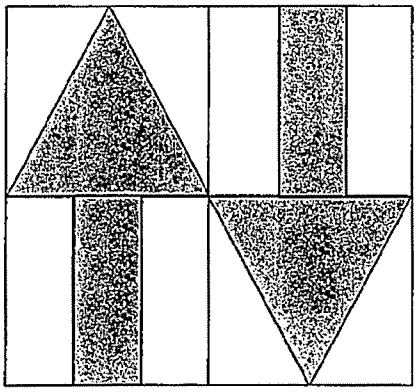
Answer: _____ cm^2

19. What is the fraction exactly between $\frac{2}{7}$ and $\frac{2}{5}$?

Answer: _____

Sub-Total : [ ]

20. The figure is made up of 4 squares. Two of the squares are divided equally into 3 rectangles. What fraction of the figure is shaded?



Answer: _____

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)

---

21. Find the value of $83 - \frac{74 - 6y}{y} - y$ when $y = 4$.

Answer: _____

22. The table below shows the number of hours that a group of 24 students spent on building a model in a day.

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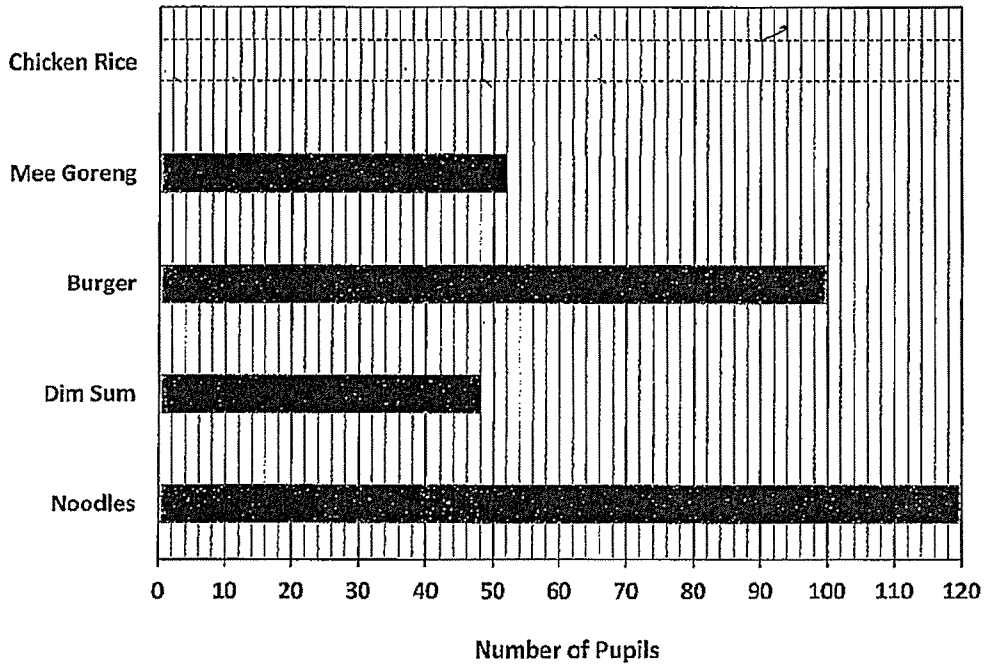

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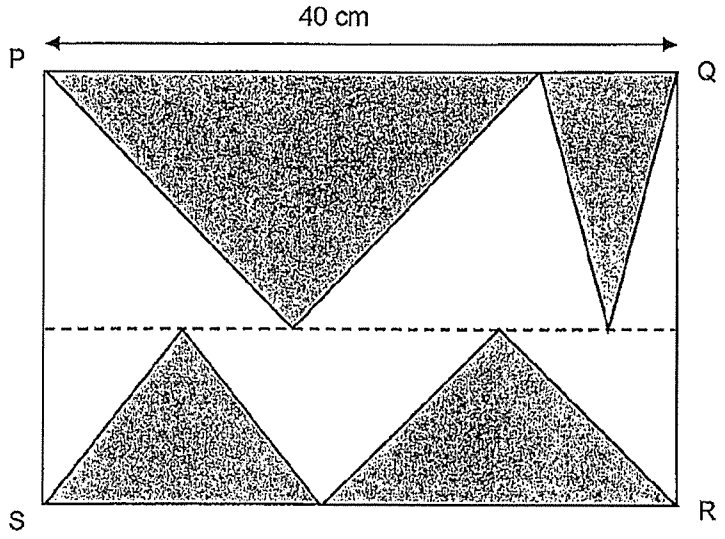


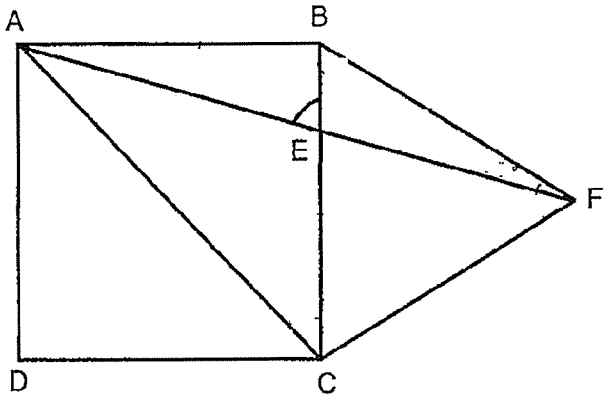
Answer: _____cm

25. Tina packed some gift bags for charity drive. She packed 7 bottles of hand sanitizers, 4 masks and 2 granola bars into every gift bag. She used 117 more hand sanitizers than masks for all her gift bags. How many granola bars did Tina pack altogether?

Answer: _____

Sub-Total : [ ]

26. In the figure below, not drawn to scale, ABCD is a square and BCF is an equilateral triangle. AEF is a straight line. Find $\angle AEB$.

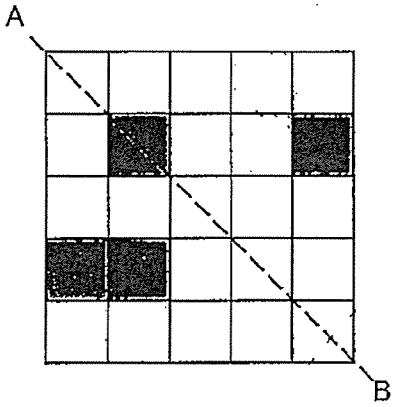


Answer: _____°

27. There were 150 members in a club in March. This was an increase of 20% when compared to February. In April, only 115 members remained in the club. What is the percentage decrease in the number of members in April compared to February?

Answer: _____%

28. In the figure below, shade the minimum additional number of squares so that AB is the line of symmetry for the figure.



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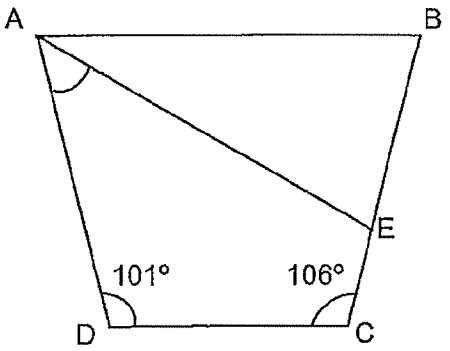

Answer: _____°

Sub-Total : [ ]

30. Kelly has $38. What is the greatest number of muffins she can buy?

First 3 muffins	$3.20 each
Additional muffin	$3 each

Answer: _____

End of Paper 1

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Anglo-Chinese School (Junior)/
Anglo-Chinese School (Primary)

COMBINED PRELIMINARY EXAMINATION (2020)
PRIMARY 6

MATHEMATICS

PAPER 2

Friday **21 August 2020** **1 h 30 min**

INSTRUCTIONS TO PUPILS
1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Show all your workings as marks are awarded for correct working.
5. Write your answers in this booklet.
6. The use of an approved calculator is expected, where appropriate.

Name : _____ ( )

Class : 6.( )

Parent's Signature:_____

Booklet / Paper	Possible Marks	Marks Obtained
Booklet A	20	
Booklet B	25	
Paper 2	55	
Total	100	

This question paper consists of 15 printed pages. (Inclusive of cover page)

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 to the units stated. (10 marks)

1. For every box of surgical masks he sells, Mr Lee earns \$12. An additional \$8 is given to him for every 10 boxes of surgical masks he sells. How many boxes of surgical masks must Mr Lee sell to make \$3200?

Answer: _____

2. A rectangular swimming pool 20 m wide, 60 m long and 4 m deep, contains 800 m^3 of water. How much more water has to be added so that the water level is 30 cm from the top? Give your answer in cubic metres.

Answer: _____ m^3

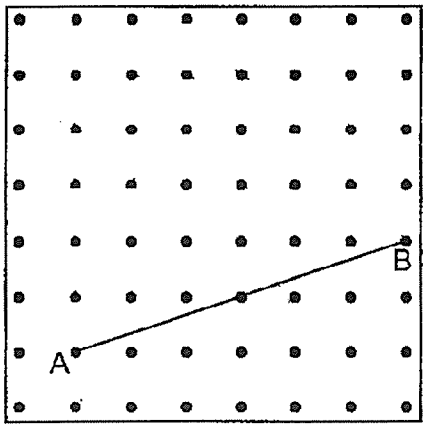
3. During a sale, a departmental store gave a storewide discount of 25%. Mr Tan who is a member of the departmental store was entitled to an additional 8% discount on the discounted price. What was the total discount he enjoyed?

Answer: _____%

4. The average mass of a group of children was 66.8 kg. When Mrs Pang measured and recorded the mass of these children, she wrongly recorded one child's mass as 59 kg when it should have been 95 kg. As a result, Mrs Pang calculated the average mass as 64.8 kg.
How many children were there in the group?

Answer: _____

5. In the grid below, by joining dots, draw 4 more straight lines to create two isosceles triangle ABC and ABD. Label all points.



For questions **6** to **17**, show your working clearly and write your answers in the 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. April went to the supermarket to buy some toilet rolls for the family. Toilet rolls were sold at the prices shown below.

Big Pack	Small Pack
$ (3n - 2)	$ (n + 3)

She bought 1 big pack and 2 small packs. She paid the cashier $50 and received $21 change. What is the value of n?

Answer: _____ [3]

7. John wanted to save some money. He saved $8 each day from Monday to Friday and $16 each day on Saturday and Sunday. Starting on Thursday, how many days did John take to save $480?

Answer: _____ [3]

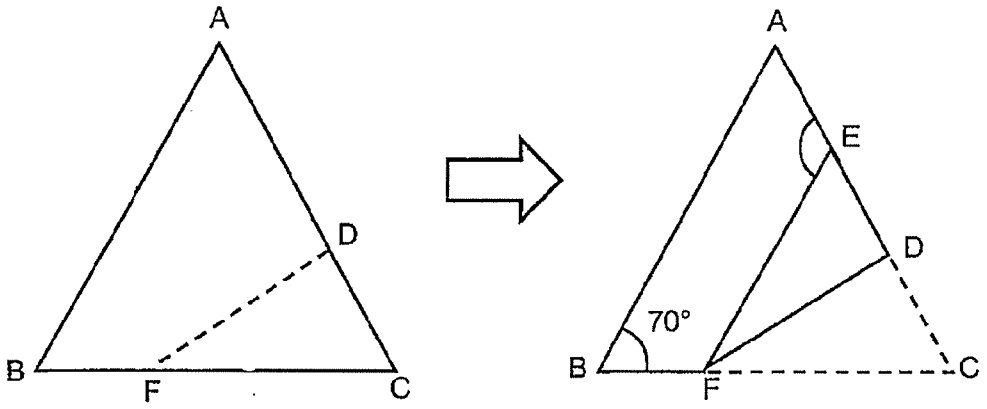
8. The table below shows the time Wilson took for 4 x 10m shuttle run during his training sessions.

Attempt	1st	2nd	3rd	4th	5th	6th	7th	8th
Time taken (in seconds)	13.1	12.5	11	11.8	12.2	12	11.4	?

If he wants to improve his average time taken by 0.3 seconds, what timing should he attain for his 8th attempt?

Answer: _____ [3]

9. The figure on the left, not drawn to scale, is a triangular piece of paper ABC. It is folded along the dotted line FD to obtain the figure on the right such that AB is parallel to EF. AEDC is a straight line. $\angle ABF = 70°$. Find $\angle AEF$.



Answer : _____ [3]

10. The table below shows the charges for water usage.

Volume of water	Charges
First 40 m^3	\$1.21 per m^3
Every additional cubic metre	\$1.52 per m^3

a) The Lee family used 32 m^3 of water in June. How much did the Lee family pay for the water used?

b) The Ali family used 58 m^3 of water in June. How much more did the Ali family pay than the Lee family for the water used in June?

Answer: (a) _____ [1]

(b) _____ [2]

11. Admission tickets for a school musical performance were sold to adults and children at different prices as shown in the table below.

	Price per ticket
Adult	$30
Child	$12

(a) Mrs Goh spent an equal amount of money on the adult and child tickets. What fraction of the tickets she bought were adult tickets?

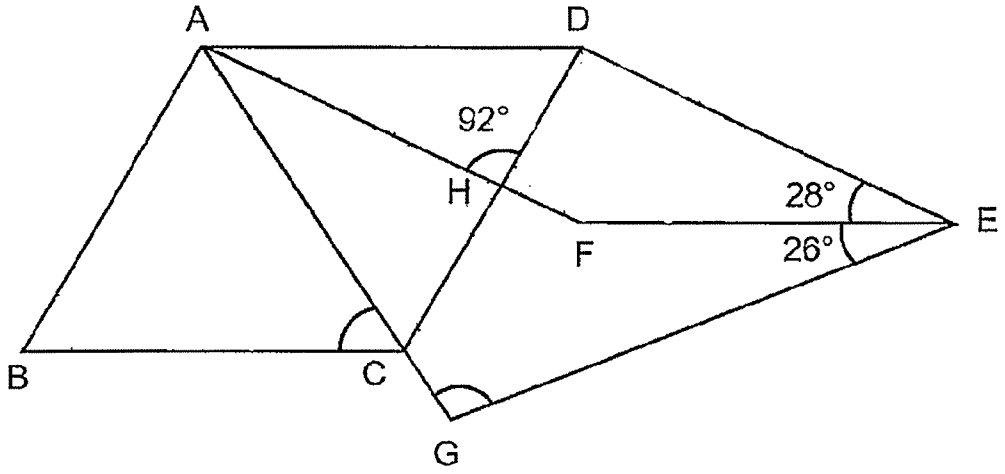
(b) The school collected a total of $11760 from selling tickets for the musical performance. The number of adult tickets sold was $\frac{3}{10}$ the number of child tickets sold. How many child tickets were sold?

Answer: (a) _____ [2]

(b) _____ [2]

12. In the figure below, not drawn to scale, ABCD and ADEF are rhombuses. ACG is a straight line. $\angle AHD = 92°$. $\angle DEF = 28°$. $\angle FEG = 26°$.

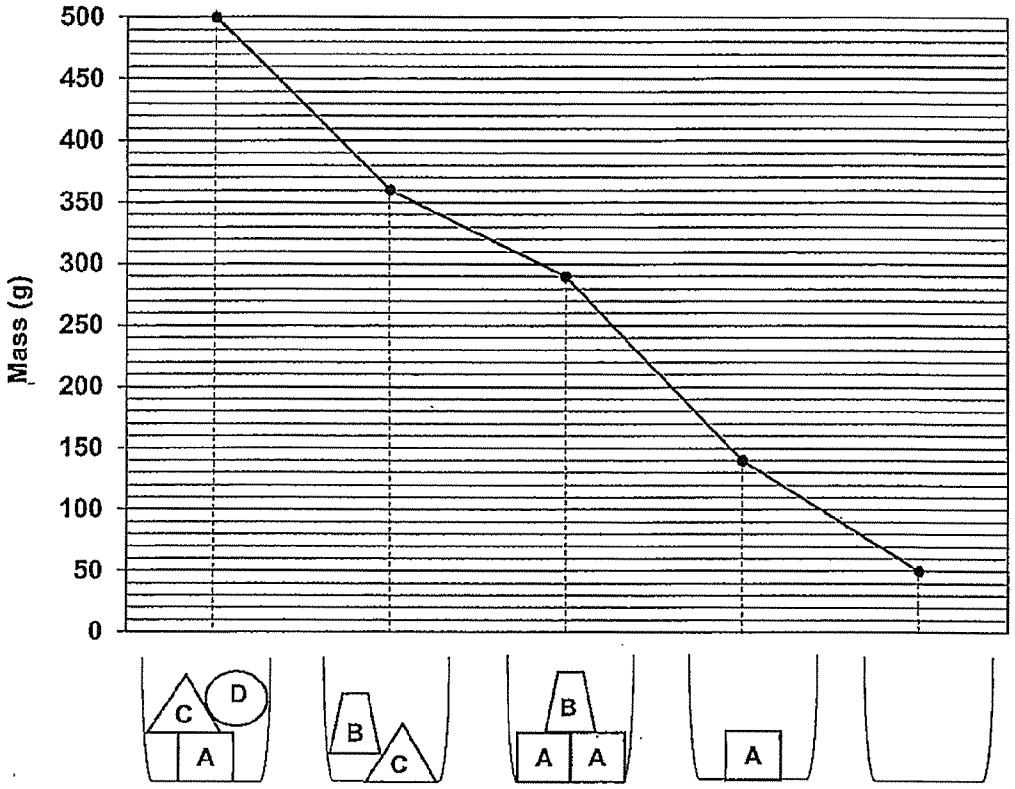
(a) Find $\angle ACB$.
(b) Find $\angle AGE$.



Answer: (a)_____ [2]

(b)_____ [3]

13. The line graph below shows the mass of a container when empty and when different combinations of objects, A, B, C and D are placed in the container.



a) What is the mass of Object B?

b) What is the total mass of Objects A, B and D?

Answer: (a)_____ [2]

(b)_____ [2]

14. Sofie had some cupcakes. She had 72 more chocolate cupcakes than red velvet cupcakes. She had 36 fewer blueberry cupcakes than red velvet cupcakes. After selling $\frac{1}{6}$ of the chocolate cupcakes, $\frac{2}{3}$ of the red velvet cupcakes and $\frac{7}{9}$ of the blueberry cupcakes, Sofie had 427 cupcakes left altogether. How many chocolate cupcakes did Sofie sell?

Answer: _____ [4]

15. Mrs Tan bought some forks and spoons in the ratio of 4 : 3. Each spoon cost 50 cents more than each fork. She spent a total of $156 on the forks and spoons. The amount she spent on the forks was $12 more than the amount she spent on the spoons.

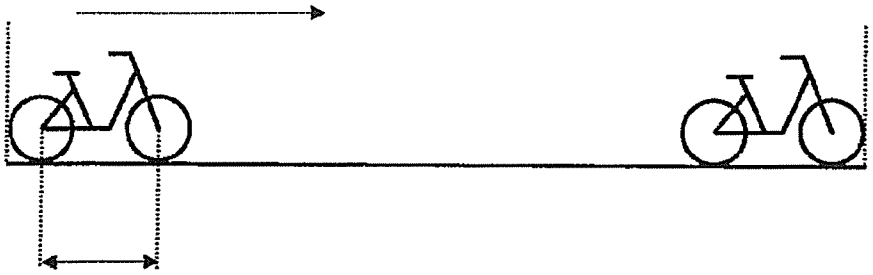
a) How much did she spend on the spoons?

b) How many forks and spoons did she buy altogether?

Answer: (a)_____ [1]

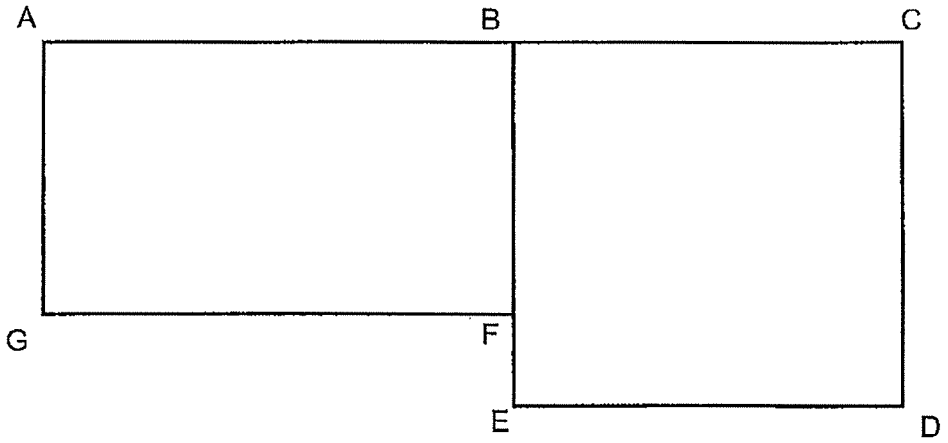
(b)_____ [3]

16. Jeff had a toy bicycle fixed on a straight track. He pushed the bicycle from one end of the track to the other end of the track where it stopped. The radius of the wheels is 3.5 cm and the distance between the 2 centers of the wheels is 10 cm. The length of the track is 259 cm. How many revolutions did each wheel make? (Take $\pi = \frac{22}{7}$)



Answer: _____ [4]

17. The figure below is made up of rectangle ABFG and square BCDE. AC = 52 cm and EF = 8 cm. The perimeters of rectangle ABFG and square BCDE are the same. Find the area of the figure.



Answer: _____ [5]

End of Paper 2

SCHOOL : ACS PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : 2020 PRELIM

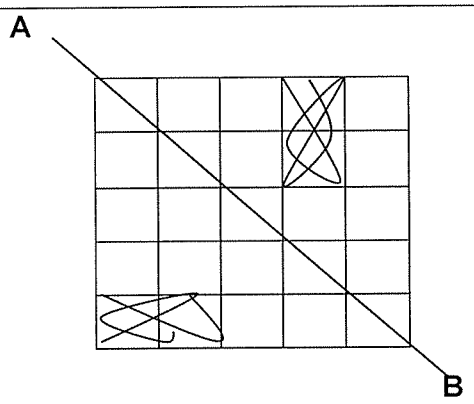
PAPER 1 BOOKLET A

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
2	3	4	2	2	4	1	4	4	3

Q 11	Q12	Q13	Q14	Q15
1	2	3	4	1

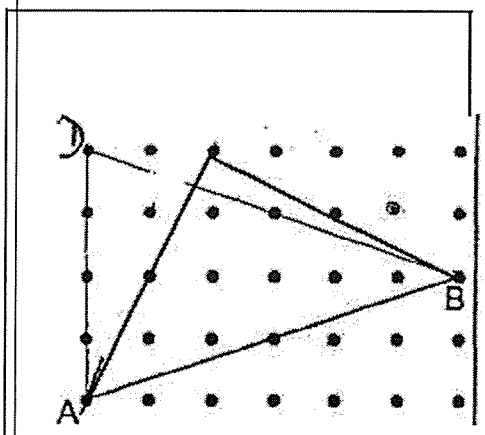
PAPER 1 BOOKLET B

Q16)	2h 23 min
Q17)	6kg 35g , $6\frac{3}{5}$, 6.35kg
Q18)	20 x 8 = 160 160 x ½ = 80 5 x 8 = 40 40 x ½ = 20 80 – 20 = 60
Q19)	$\frac{12}{35}$
Q20)	$\frac{5}{12}$
Q21)	66.5
Q22)	3.5h
Q23)	200 + 120 = 320 320 ÷ 60 = 4 4 + 20 = 80
Q24)	500 x 2 = 1000 1000 ÷ 40 = 25

Q25)	117 ÷3 = 39 39 x 2 = 78
Q26)	90 + 60 = 150 180 – 150 = 30 180 – 75 = 105 180 – 105 = 75°
Q27)	8%
Q28)	
Q29)	47°
Q30)	3.20 x 3 = 9.60 38 – 9.60 = 28.40 28 ÷3 = 9 9 + 3 = 12

PAPER 2

Q1)	12 x 10 = 120 120 + 8 = 128 3200 ÷ 128 = 25 25 x 10 = 250
Q2)	364m
Q3)	75 ÷100 = 0.75 0.75 x 8 = 6 25 + 6 = 31%
Q4)	95 – 59 =36 66.8 – 64.8 = 2 36 ÷2 = 18

Q5)	
Q6)	50 – 21 = 29 29 – 4 = 25 25 ÷5 = 5
Q7)	8 + 8 + 16 + 16 = 48 480 – 48 = 432 432÷72 = 6 7 x 6 = 42 42 + 4 = 46
Q8)	13.1 + 12.5 + 11 + 11.8 + 12.2 + 12 + 11.4 = 84 84 ÷7 = 12 12 – 0.3 = 11.7 11.7 x 8 = 93.6 93.6 – 84 = 9.6
Q9)	∠BFE = 180 – 70 = 110 ∠CFE = 180 – 110 = 70 ∠CFD = 70 ÷2 = 35 $\angle FCD = \frac{180 - 70}{2} = 550$ ∠ AEF = 180 – 55 = 125°

Q10)	a)32 x 1.21 = $38.72 b)1.21 x 40 = 48.4 58 – 40 = 18 18 x 1.52 = 27.36 48.4 + 27.3675.76 75.76 – 38-72 = $37.04
Q11)	a)1A = 30 x 2 1C = 12 x 5 2A = 60 5C = 60 2 + 5 = 7 $=\frac{2}{7}$ b)3 x 30 = 90 10 x 12 = 120 120 + 90 = 210 11760 ÷210 = 56 56 x 10 = 560
Q12)	a)60° b)94°
Q13)	a)60g b)260g
Q14)	57
Q15)	a)$72 b)42
Q16)	11
Q17)	904cm2