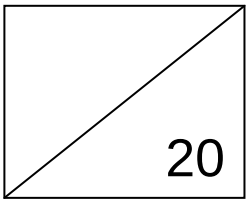
Name: _____ Class: _____ Date: _____

COVERS TOPICS TAUGHT IN GRADE 6



Section A

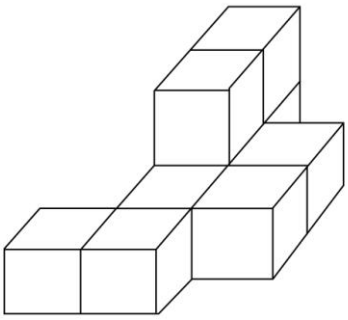
Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. Choose the correct answer and write its number in the brackets provided. (20 marks)

---

1. 700 000 + 40 000 + 800 + 3 = _____

   (1) 748 003
   (2) 704 803
   (3) 748 300
   (4) 740 803 ( )

2. This solid is made up of 1-metre cubes. What is its volume?

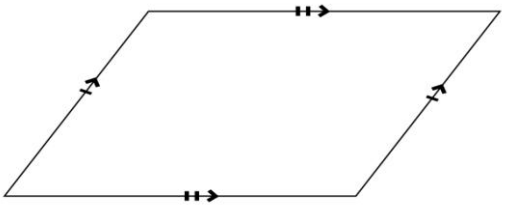


   (1) 6 m^3
   (2) 7 m^3
   (3) 8 m^3
   (4) 9 m^3 ( )

3. What is the value of 124 ÷ 1000?

   (1) 0.124
   (2) 1.24
   (3) 12.4
   (4) 1240 ( )

4. Name the shape.



(1) rhombus
(2) parallelogram
(3) square
(4) rectangle ( )

5. Express 25 minutes as a fraction of 2 hours in its simplest form.

(1) $\frac{1}{24}$
(2) $\frac{5}{24}$
(3) $\frac{1}{12}$
(4) $\frac{5}{12}$ ( )

6. Jolene had $\frac{3}{4}$ m of ribbons. She used $\frac{1}{5}$ of it to tie a present. What length of string did she use to tie the present?

(1) $\frac{1}{10}$ m
(2) $\frac{7}{10}$ m
(3) $\frac{3}{20}$ m
(4) $\frac{11}{20}$ m ( )

7. Find the value of $\frac{2}{3} \div 6$.

(1) $\frac{1}{9}$
(2) $\frac{3}{18}$
(3) $\frac{8}{9}$
(4) $\frac{2}{9}$ ( )

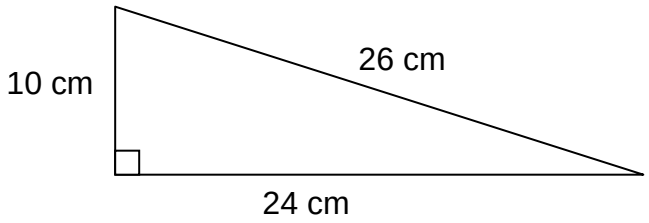
8. 24 : A = 3 : 4
What is the value of A?

(1) 18
(2) 23
(3) 25
(4) 32 ( )

9. Estimate the value of 4579 $\times$ 5 by rounding the 4-digit number to the nearest thousand.

(1) 20 000
(2) 22 000
(3) 22 500
(4) 25 000 ( )

10. Find the area of the triangle below.



(1) 120 cm^2
(2) 130 cm^2
(3) 240 cm^2
(4) 260 cm^2 ( )

11. A microwave oven was sold at 20% above the cost price. If the selling price of the microwave oven was R600, what was the cost price?

(1) R120
(2) R480
(3) R500
(4) R720 ( )

12. The average of 2 numbers is 9. If one of the numbers is 4, what is the other number?

(1) 18
(2) 14
(3) 5
(4) 4 ( )

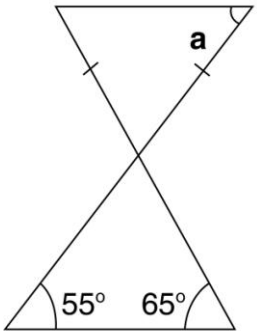
13. The sum of 6 different numbers is 252. The greatest number is 60 and the smallest number is 12. Find the average of the rest of the numbers.

(1) 36
(2) 45
(3) 90
(4) 180 ( )

14. Mrs Smith has to type a 6-page document. Each page contains an average of 650 words. How long will she take to type the whole document if she types at the rate of 40 words per minute?

(1) $1\frac{1}{12}$h
(2) $1\frac{2}{3}$h
(3) $1\frac{5}{8}$h
(4) $1\frac{3}{4}$h ( )

15. The figure below is not drawn to scale. Find $\angle$a.



(1) 30°
(2) 55°
(3) 60°
(4) 65° ( )

Name: _____ Class: _____ Date: _____

Section B

20

Questions 16 to 25 carry 1 mark each. Write your answers in the spaces provided. For questions that require units, give your answers in the units stated. (10 marks)

16. A factory produces 509 584 toys a month.
What is the number when it is rounded off to the nearest thousand?

Ans: _____

17. In 4 273 581, which digit is in the ten thousands place?

Ans: _____

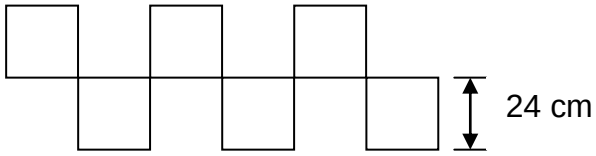
18. Express 135 g as fraction of 2 kg in its simplest form.

Ans : _____

19. Express 151 minutes in hours and minutes.

Ans : _____h_____min

20. Ray has a piece of wire. He bends it to form six squares, as shown below. Find the length of the piece of wire.

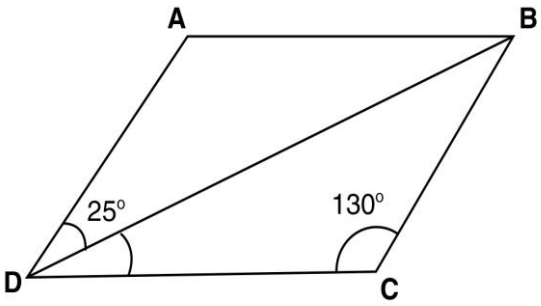


Ans: _____ cm

21. Express the ratio $12:18:24$ in its simplest form.

Ans : _____

22. The figure below is not drawn to scale. ABCD is a rhombus. Find $\angle CDB$.

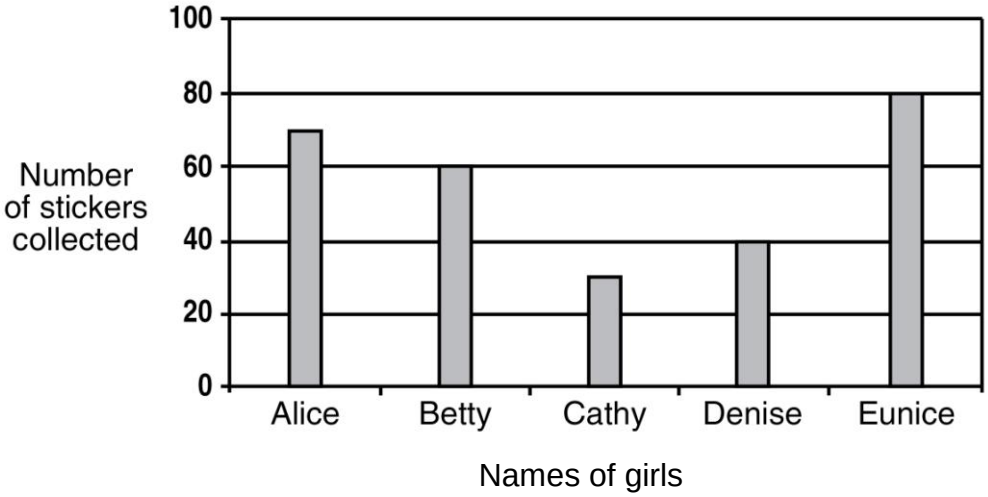


Ans : _____°

23. The average mass of Joe and his 3 cousins is 52 kg. If Joe's mass is 55 kg, what is the average mass of his 3 cousins?

Ans : _____ kg

The graph below shows the number of stickers collected by 5 girls. Study the graph carefully and answer questions 24 and 25.



24. How many more stickers did Alice and Denise collect than Eunice?

Ans : _____

25. What was the average number of stickers collected by the 5 girls?

Ans : _____

Questions 26 to 30 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided.
For questions that require units, give your answers in the units stated.

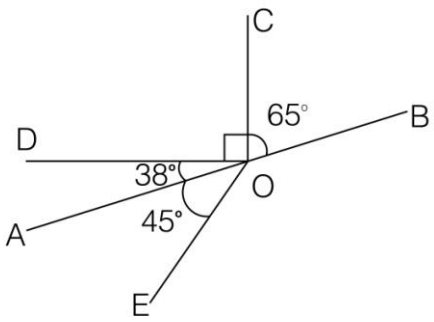
(10 marks)

---

26. How many pieces of string, each $\frac{1}{8}$ m long, can be cut from a piece of string 15 m long?

Ans : _____

27. The figure below is not drawn to scale. AOB is a straight line.
Find $\angle$EOB.



Ans : _____°

28. One afternoon, Francis read page 102 to page 268 of a novel. That same evening, he read another 100 pages of the novel. How many pages of the novel did he read on that day?

Ans : _____

29. In a box, the ratio of the number of red marbles to the number of blue marbles is $5:3$. The ratio of the number of blue marbles to the number of green marbles is $1:5$. Find the ratio of the number of red marbles to the number of green marbles in the box. (Express your answer in its simplest form.)

Ans : _____

30. At a car park, the parking fees are as follows:

Parking Charges	
For the 1st hour	R1.20
For each additional half hour or part thereof	R0.80

How much does it cost to park a car at the car park for $4\frac{1}{4}$ hours?

Ans : R_____

Name: _____ Class: _____ Date: _____

Section C

60

Questions 1 to 5 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided.
For questions that require units, give your answers in the units stated.

(10 marks)

1. Alan paid a down payment of R33 000 for his new van. He then paid the remaining amount in monthly instalments of R475 for 7 years. What was the total cost of the van?

Ans : R _____

2. Mr Brown had a long stick. After he had cut 12 short pieces of sticks each measuring $2\frac{1}{4}$ cm from it, $1\frac{5}{6}$ cm of the stick was left. What was the length of the original stick? (Give your answer in its simplest form.)

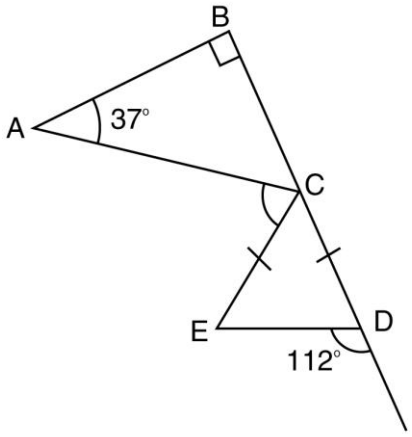
Ans : _____ cm

3. The average of four numbers is 225. Two of the numbers have been accidentally torn out, as shown below. What is the sum of the numbers that were torn out?

Ans : _____

---

4. In the figure below, not drawn to scale, $\angle ABC = 90°$ and $EC = CD$. BCD is a straight line. Find $\angle$ ACE.



Ans : _____°

---

5. At a carnival, the number of women is 30% the number of men and 50% the number of children. If there are 450 women, how many people are there at the carnival?

Ans : _____

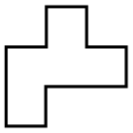
For questions 6 to 18, show your working clearly in the space below each question and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (50 marks)

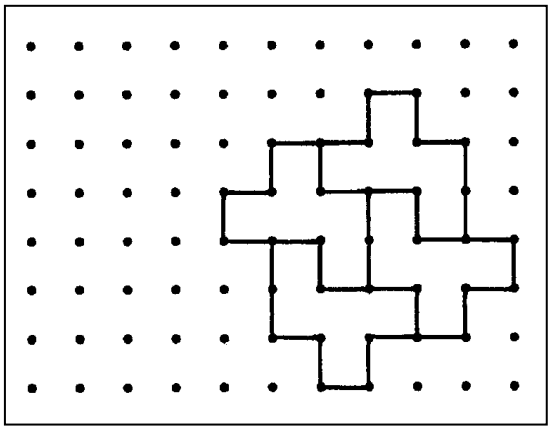
---

6. Nelly had R3682 and John had R1946. They went shopping and Nelly spent thrice as much as John. They had the same amount of money left after that. How much money did Nelly spend?

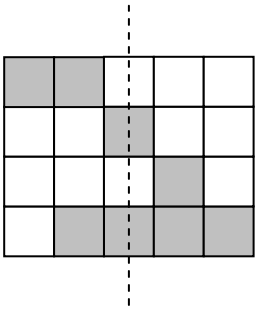
Ans: _____ [3]

---

7. (a) The unit shape  can be tessellated. Extend the tessellation below by drawing **2 more** unit shapes in the space provided. [2]



(b) How many more squares must be shaded to make the figure symmetrical about the dotted line? [1]



8. Florence bought two bags of flour, A and B. The two bags contained different amounts of flour. The total mass was 108 kg. Gary poured $\frac{1}{4}$ of the flour from Bag A into Bag B. After that, he poured $\frac{2}{5}$ of the flour from Bag B into Bag A. He found that both bags of flour had the same mass now. How much flour was there in Bag B at the beginning?

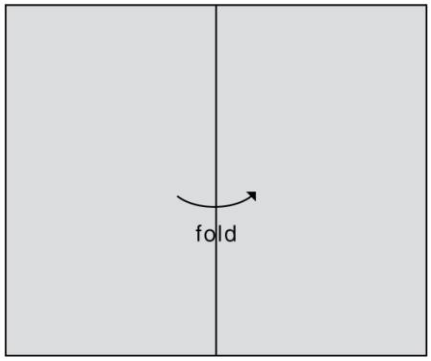
Ans : _____[4]

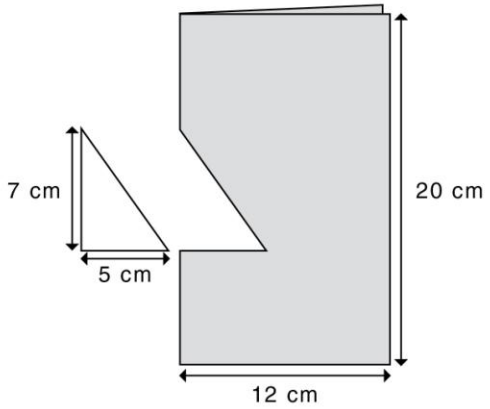
9. A rectangular tank measures 62.5 cm by 16 cm by 25 cm. It contains 5.8 litres of water. How much more water is needed to fill the tank to its brim?
(1 litre = 1000 cm^3)

Ans : _____[4]

---

10. Tom folded a rectangular sheet of paper into two halves. Then he cut out a triangle from the folded sheet of paper, as shown below. Find the area of the remaining sheet of paper when it is unfolded.





Ans : _____[4]

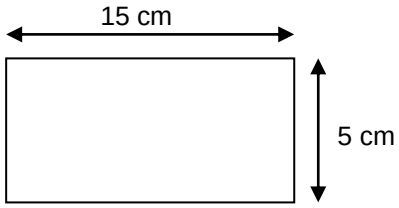
---

11. Mr Howin had 150 oranges and 60 apples. He sold the oranges at 5 for R2.40 and the apples at 3 for R1.50 to Mrs Samuel. How much change did Mrs Samuel receive if she gave Mr Howin R120?

Ans : _____[4]

---

12. The figure below is not drawn to scale. Mandy increases the length of the figure by 75% and increases the breadth by 40%. Find the area of the new figure.



Ans : _____[4]

---

13. Mrs Sam bought 4 watermelons and 5 papayas for R45.75. If she had bought 5 watermelons and 10 papayas instead, it would cost her R66. Find the cost of 12 watermelons.

Ans: _____ [3]

---

14. A sale was held for a week. It attracted a daily average of 4601 customers on the first 4 days, a daily average of 3900 customers on the next 2 days and 2090 customers on the last day. Find the average number of customers per day.

Ans : _____ [3]

---

15. Connie, Dion and Emmy have a total of 186 beads. The ratio of the number of beads Connie has to the number of beads Dion has is 2 : 3. The ratio of the number of beads Dion has to the number of beads Emmy has is 2 : 7. Express the number of beads Connie has as a fraction of the number of beads Emmy has.

Ans : _____[3]

16. Tickets for a performance are priced at R20 and R30. The table below shows the discounts given for bulk purchases. Discounts are only given for the 21st ticket onwards.

Discount For R20 & R30 Tickets			
	21st to 50th	51st to 100th	Above 100th
Discount Per Ticket	R4.50	R5.50	R6.50

Mr White bought a total of 120 tickets for 5 charity organisations. Among the tickets that he bought, there were 3 times as many R20 tickets as R30 tickets.

(a) Find the amount of discount Mr White received.
(b) Find the number of R20 tickets Mr White bought.

Ans : (a) _____[3]

(b) _____[2]

17. $\frac{5}{8}$ of Tank A, which measures 80 cm by 30 cm by 50 cm, is filled with water and $\frac{2}{5}$ of Tank B is filled with water. The ratio of the volume of water in Tank A to that in Tank B is $5:2$. How much more water is needed to fill up Tank B?

Ans : _____[5]

18. Karen has 60% as much money as Leslie. Leslie's sum of money is 60% of Matthew's. If Matthew gives Karen R140, Matthew will have the same amount of money as Leslie. How much do they have altogether?

Ans : _____[5]

- End of Test -