

Year 5 Term 3 Homework

Student Name: _____	Grade: _____
Date: _____	Score: _____

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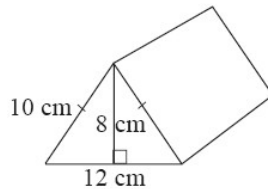
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6 Year 5 Term 3 Week 6 Homework

6.1 Topic 1 — Space 3D & 2D

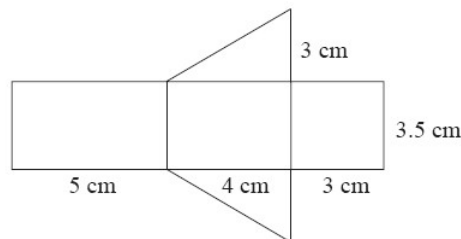
1. This prism has 2 triangular faces, each with base 12 cm, height 8 cm and side edges 10 cm.



- (a) How long is the prism if its volume is 720 cm^3 ?

- (b) What is the surface area of the prism?

2. A cuboid was cut into two equal pieces. This is the net of one of the halves.



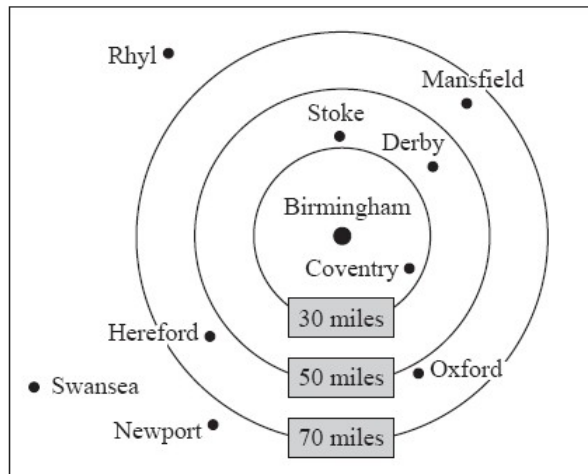
- (a) Name this solid: _____ .

- (b) Calculate the surface area of the solid.

- (c) Calculate of the volume of the solid.

6.2 Topic 2 — Position

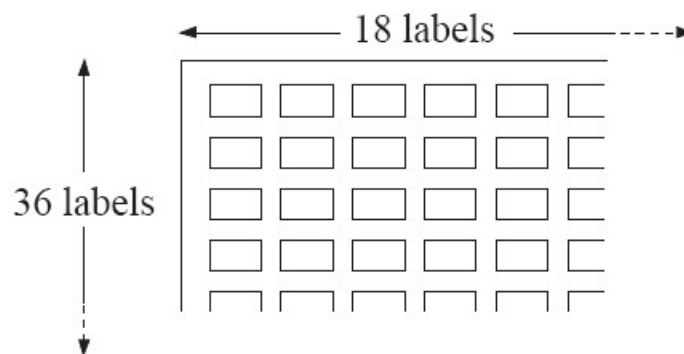
1. This diagram shows the distance of different towns from Birmingham.



(a) Write the name of a town which is between 30 and 50 miles from Birmingham.

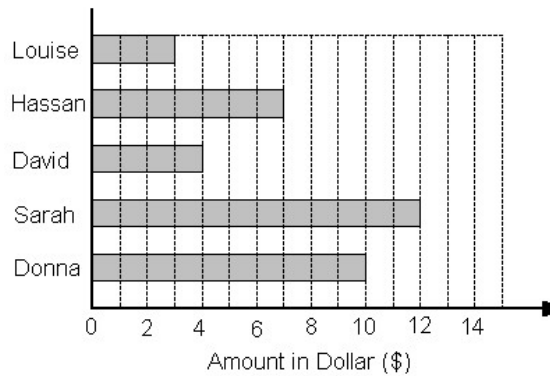
(b) Use the diagram to estimate the distance in miles from Birmingham to Mansfield.

2. A shop sells sheets of sticky labels. On each sheet there are 36 rows and 18 columns of labels. How many labels are there altogether in 45 sheets?



6.3 Topic 3 — Graphs

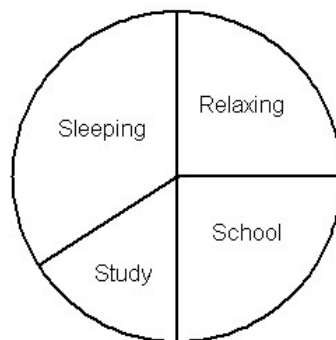
1. Five children collect money to plant trees. Here is a bar chart of the amounts they have raised so far.



- (a) Their target is \$60 altogether. How much more money do they need to reach the target?

- (b) On average how much did each person raise?

2. The sector graph shows how Raymond spends 24 hours of each day.

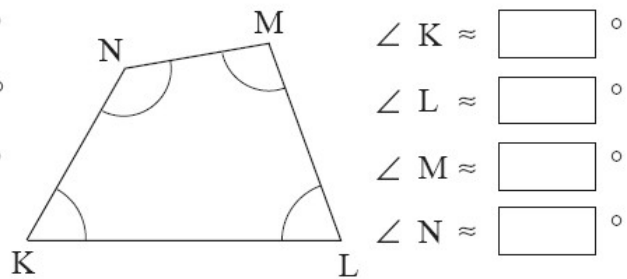
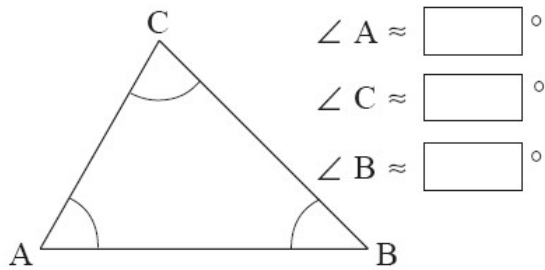
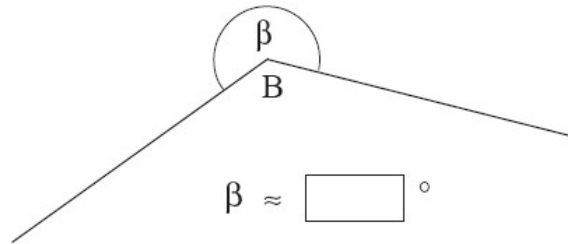
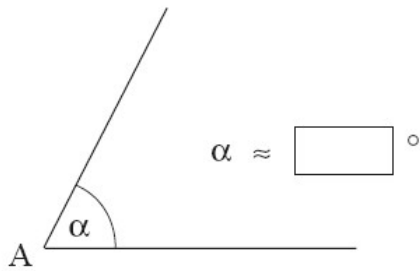


- (a) How many hours does he spend at school?

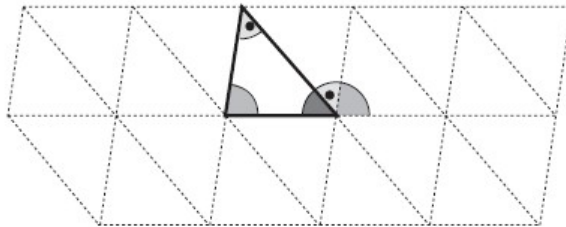
- (b) If he study three and a half hours each day, how many hour does he sleep?

6.4 Topic 4 — Geometry (Angles)

1. Measure the following angles:



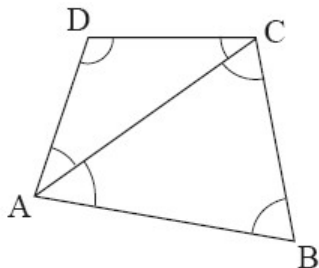
2. What is the sum of the angles in this triangle? The shading might help you.



+ + = $\boxed{}^\circ$

Is the sum the same for any other triangle in the grid? $\boxed{}$

3. Fill the missing items:



i) The sum of the angles in $\triangle ABC$ is $\boxed{}^\circ$

ii) The sum of the angles in $\triangle ACD$ is $\boxed{}^\circ$

iii) The sum of the angles in $ABCD$ is $\boxed{}^\circ$

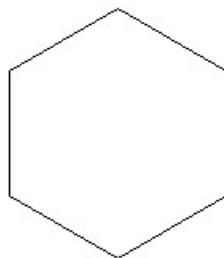
6.5 Problem Solving (Related Problems)

1. Six people are introduced to each other, and each person shakes hands with each other. How many handshakes are exchanged altogether among the six people?

People	Handshakes	
2	1	+2
3	3	+3
4	6	+4
5	10	
6		
7		
8		
9		

2. Each person in a certain group of people shakes hands with each of the others exactly once, and 91 handshakes are exchanged altogether. How many people are in this group?

3. The figure shown below is a hexagon. How many diagonals can be drawn in it?



6.6 Test Paper 6

6.6.1 Part A — 10 Multiple Choice Questions (1 mark each)

1. What is the smallest number which is divisible by 18, 24 and 36?
(A) 48 (B) 72 (C) 96 (D) 144
2. What is $\frac{1}{25}$ expressed as a percentage?
(A) 25% (B) 2.5% (C) 4% (D) 0.4%
3. Which letter does not have a line of symmetry?
(A) E (B) N (C) M (D) W
4. There are _____ lines of symmetry in a regular pentagon.
(A) 5 (B) 6 (C) 7 (D) 10
5. The following words are spelt the same forwards and backwards but only one has one line of symmetry:
(A) DAD (B) MUM (C) NOON (D) BUB
6. If there are dozens and dozens of lines of symmetry in a circle, how many are there in a semi-circle?
(A) too many to count (B) none (C) one (D) dozens and dozens
7. Sarah has a bag with 5 red, 3 green and 4 white balls. Which colour has the best chance of being pulled out?
(A) red (B) green (C) white (D) any of them
8. The Easter Raffle sold 100 tickets. Mine is number 68. What are my chances of winning a lovely basket of eggs?
(A) 1 in 100 (B) 68 in 100 (C) 32 out of 68 (D) 1 in 2
9. A cup holds 200 mL. If I need 50 cups of hot water. How many litres of water do I need to boil?
(A) 10 litres (B) 20 litres (C) 50 litres (D) 100 litres
10. The 4th of February in 2003 was a Tuesday. What is the date of the last Tuesday in February 2003?
(A) 11th (B) 24th (C) 25th (D) 28th

6.6.2 Part B — 10 Average Questions (2 marks each)

1. At North Ryde Public School there are 5 tennis teams in the junior division. How many matches must there be for all teams to play each other once?

2. I am thinking of two numbers. When I add them, my answer is 15. When I take the smaller number from the large, my answer is 3. What two numbers am I thinking of?

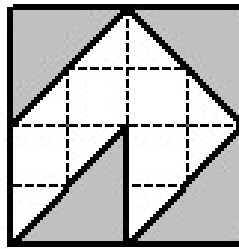
3. Anne has 3 ten-cent coins and 2 fifty-cent coins. How many different amounts of money can she make if she wants to use at least one of each type of coin?

4. From a large pizza, Linda can cut 7 equal slices for 7 children.

(a) If Linda had 4 large pizzas, how many children could she serve with an equal slice?

(b) How many large pizzas does Linda need if 18 children have to be served?

5. What fraction of the square is shaded?



6. Daniel left home for a holiday on 22 March at 9 a.m. and returned on 2nd May at 8 p.m. For how many days was he on holiday?

7. Gavin made three mobile phone calls to his three friends. The phone calls last for 3 minutes 25 seconds, 6 minutes 55 seconds and 4 minutes 30 seconds. If the cost of phone calls is 60 cents for every minute or 1 cent for each second, find the cost of these three phone calls.

8. A bottle of lemon drink costs 68 cents. The lemon drink costs 28 cents more the bottle. What is the value of the bottle?

9. David and Tony together weigh 128 kg. David weighs 4 kg more than Tony. How much does each man weigh?

10. 10 telegraph poles are placed 80 m apart. How many metres will there be between the first and the fifth telegraph pole?

6.6.3 Part C — 10 Extension Questions (3 marks each)

1. In a trip lasting 5 hours 25 min, a boat averaged 18 knots. How many nautical miles was the trip?
(1 knot equals 1 nautical mile per hour)

2. If 1 litre of oil weighs 900 grams, what is the weight of 3.2 litres of oil?

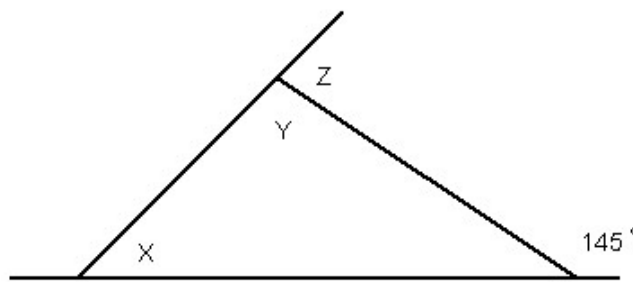
3. The volume of a closed cube is 125 cm^3 . What is the total surface area if two of such cubes are joined together to form a square-based prism?

4. Find the average of $\frac{1}{3}$, $\frac{1}{4}$ and $\frac{1}{5}$.

5. If I doubled the product of 8 and 6 and subtracted double the sum of 8 and 6, what should I get?

6. Jane has a DVD recorder which has a 24 hour clock. She wishes to record a T.V. programme lasting 140 minutes. The programme begins at 6:45 p.m. What time will the DVD show when the programme is finished?

7. Find the sum of $\angle X$, $\angle Y$ and $\angle Z$ if $\angle Y$ is twice as large as $\angle Z$.



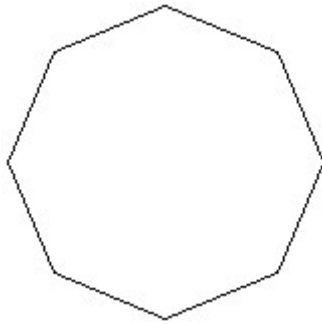
8. A man whose age is 52 years, was 28 years old when his son was born. How old will his son be in 3 years time?

9. Peter walked $13\frac{3}{4}$ km in 2 hours 30 minutes. How far will he walk for 3 hours and 15 minutes in the same speed?

10. There are 280 pages in a book. Cathy has finished reading $\frac{1}{8}$ of the book on each school day. How many more pages does she have to read to complete the book during the weekend?

6.6.4 Part D — 8 Challenging Questions (5 marks each)

1. The figure shown below is a octagon. How many diagonals can be drawn in it?



2. At my school there are 8 tennis teams in the intermediate division. How many matches must there be for all teams to play each other?

3. If 8 friends sent birthday cards to one another, how many cards did they send altogether in a year?

4. Mr and Mrs Healthy have 3 children. The youngest child drinks 1 L of milk in 2 days. The two older children together drink 2 L of milk in 3 days, while the parents drink half a litre each day. How many litres milk does the Healthy family drink in 6 days?

5. The area of a rectangle is 120 cm^2 . If its length is decreased by 8 cm and its width is increased by 4 cm, then its area does not change. Find the perimeter of the original rectangle if all measurements are whole numbers.

6. The walls of a room have to be painted. The room is 8 m long, 6 m wide and 2.7 m height. What is the total surface area of the four walls of the room?

7. I spent $\frac{1}{3}$ of my money in store A. I then spent $\frac{2}{3}$ of what remained in store B. When I left store B, I had \$6 left. How much money did I start with?

8. A 3 cm square is cut from a 20 cm square paper from each corner as shown. Fold along the dotted lines to form an open box. What is the volume of the box?

