Year 7 Mathematics 2012

Geometry and Time Test

Time allowed: 60 minutes

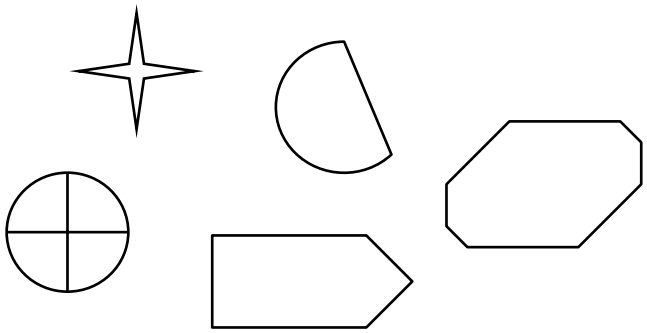
Total marks: 70

Name_____

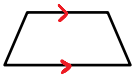
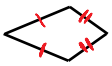
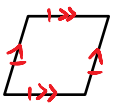
Show your working for any question worth more than one mark.

1. Circle all the polygons shown below:

[2]



2. Connect the polygon with the correct picture by drawing a line. [3]

Kite	
Pentagon	
Isosceles Triangle	
Trapezium	
Rhombus	
Scalene Triangle	

3. Name four types of quadrilaterals. [2]

_____ _____

_____ _____

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4. Draw an angle of 112° **and** state the type of angle

Answer (7) _____ [2]

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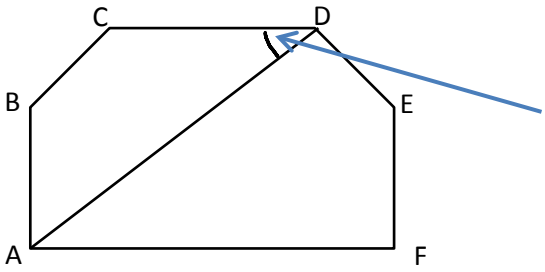
5. Look at the diagram below and answer the following questions.



(a) Using three point notation, name the angle indicated Answer (a) _____ [1]

(b) Measure the angle DAF and state what type of angle it is Measurement: _____

Type of angle: _____ [2]

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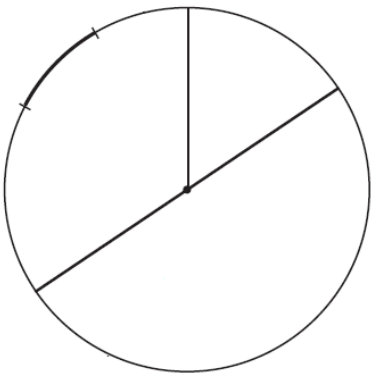
6. On the circle shown below label the radius, arc, and circumference. [3]



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7. Answer the following questions as True (T) or False (F) [5]

(a) A regular polygon has all sides and angles the same _____

(b) A right angle triangle can also be isosceles _____

(c) A polygon must be regular _____

(d) A rhombus is a regular quadrilateral _____

(e) A trapezium has two pairs of parallel sides _____

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8. Construct (use a compass to draw) a circle below with a diameter of 6 cm. [2]

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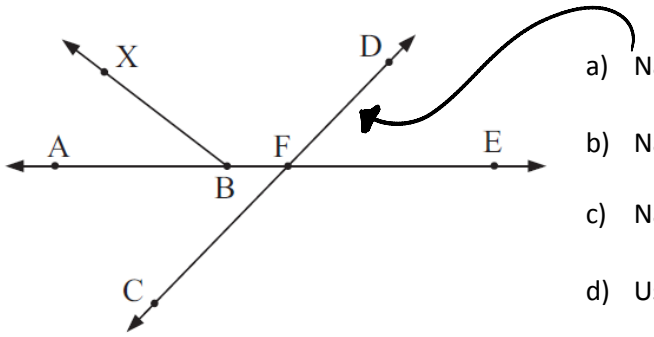
9. Look at the diagram below and then answer the questions. [4]



a) Name the line indicated _____

b) Name the intersection of $\overrightarrow{AE}$ and $\overrightarrow{CD}$ _____

c) Name a line segment _____

d) Using a ruler draw a new line to create ray $\overrightarrow{EG}$

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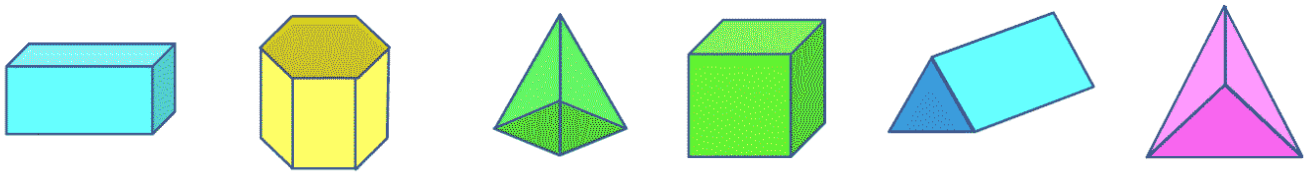
10. Using a ruler, draw the net for a tetrahedron (triangular based pyramid) [2]

11. Answer the questions below about the solids shown:



A **B** **C** **D** **E** **F**

a) Name solid B _____ [1]

b) Name solid E _____ [1]

c) Which solid has eight faces? _____ [1]

d) Which solid has nine edges? _____ [1]

e) Write down the number of Edges, Vertices and Faces of Solid F

Edges _____ [1]

Vertices _____ [1]

Faces _____ [1]

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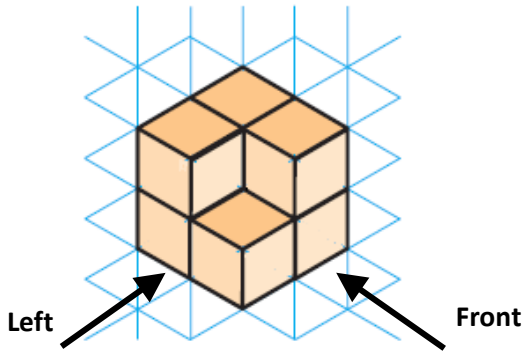
12. (a) Which two solids have been joined to form the solid shown below? [2]

Solid 1: _____

Solid 2: _____

(b) In the space provided draw the cross section of the solid if it was cut in half vertically [1]

13. Draw the front, left and plan view of the isometric solid shown [3]



[3]

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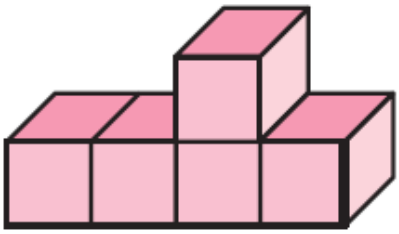
14. Draw an isometric projection of the following solid on the isometric grid below, the darker edge should be closest to you.



[2]

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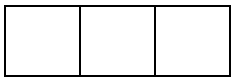
15. Draw **three** different solids which would give the top view shown below on the isometric paper provided:

Top View:



[3]

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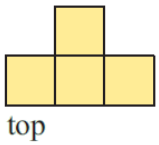
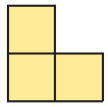
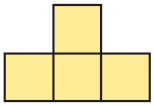
16. Draw the 3-dimensional solid which would have the following views on the isometric paper provided.


top


right


front

[3]

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17. Fill in the following questions on time.

a) Rewrite 9:21 pm in 24-Hour time. _____ [1]

b) Rewrite 0740 hours in standard 12-Hour time. _____ [1]

c) How many seconds in 4 ½ minutes? _____ [1]

d) Write the time shown on the clock in 24- hour time _____ [1]

Morning

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18. Using the words in the box below, fill in the gaps.

366	Seconds	100	Week
Fortnight	Century	1000	Day
365	1,000,000	Month	356

(a) There are 2 weeks in a _____. [1]

(b) 24 hours are in a _____. [1]

(c) _____ days are in a non-leap year. [1]

(d) _____ years are in a millennium. [1]

(e) 60 _____ in a minute. [1]

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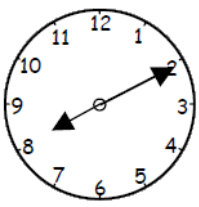
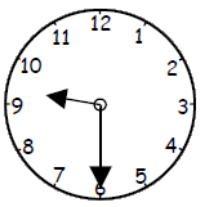
19. Write the number of **hours** and **minutes** between the times shown on the two clocks. Show your working.



A.M.



A.M.

Answer: _____ [2]

20. Study the Train Timetable below and answer the corresponding questions.

CARLINGFORD-WYNYARD TRAIN TIMETABLE

	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.
Carlingford	3.32	4.11	4.45	5.23	5.55	6.26	6.52
Telopea	3.34	4.13	4.47	5.25	5.57	6.28	6.54
Dundas	3.36	4.15	4.49	5.27	5.59	6.30	6.56
Rydalmere	3.38	4.17	4.51	5.29	6.01	6.32	6.58
Camellia	3.40	4.19	4.53	5.31	6.03	6.34	7.00
Rosehill UA	3.42	4.21	4.55	5.33	6.05	6.36	7.02
Clyde .....arr	3.45X	4.24X	4.58X	5.36X	6.08X	6.39X	7.05
dep	3.51	4.26	5.00	5.48	6.18	6.48	7.06
Lidcombe.....**arr**							
dep	3.57	4.31	5.06	5.54	6.24	6.54	7.12
Strathfield....**arr**	4.02	4.36	5.11	5.59	6.29	6.59	7.18X
dep	4.03	4.37	5.12	6.00	6.30	7.00	7.23
Central.....**arr**	4.17	4.50	5.26	6.14	6.44	7.14	7.36
dep	4.18	4.51	5.27	6.15	6.45	7.15	7.37
Townhall	4.21	4.54	5.30	6.18	6.48	7.18	7.40
Wynyard	4.24	4.57	5.33	6.20	6.50	7.20	7.42

a) If I catch the 4:17 pm train at Rydalmere, what time will I arrive at Central? _____ [1]

b) What is the latest time I could catch the train from Dundas in order to arrive at Lidcombe by 6:00 pm

_____ [1]

c) If I miss the 5:00 pm train from Clyde, what would be the earliest time that I could arrive at Wynard?

_____ [1]

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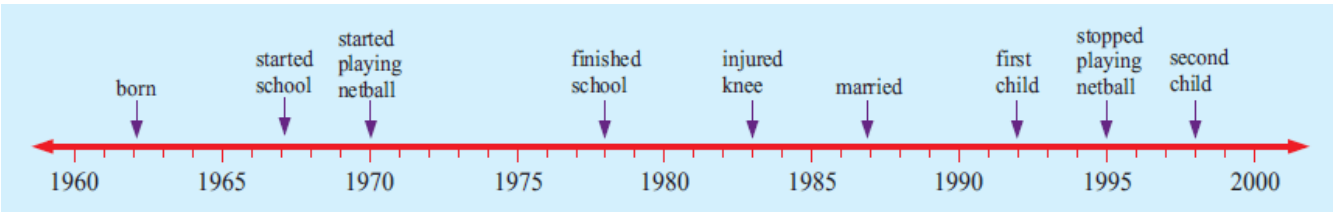
21. Study the timeline below of Sarah's life and answer the corresponding questions



(a) What year did Sarah start school? _____ [1]

(b) How old would Sarah be now (in 2012)? _____ [1]

(c) What is the age difference between Sarah's two children? _____ [1]

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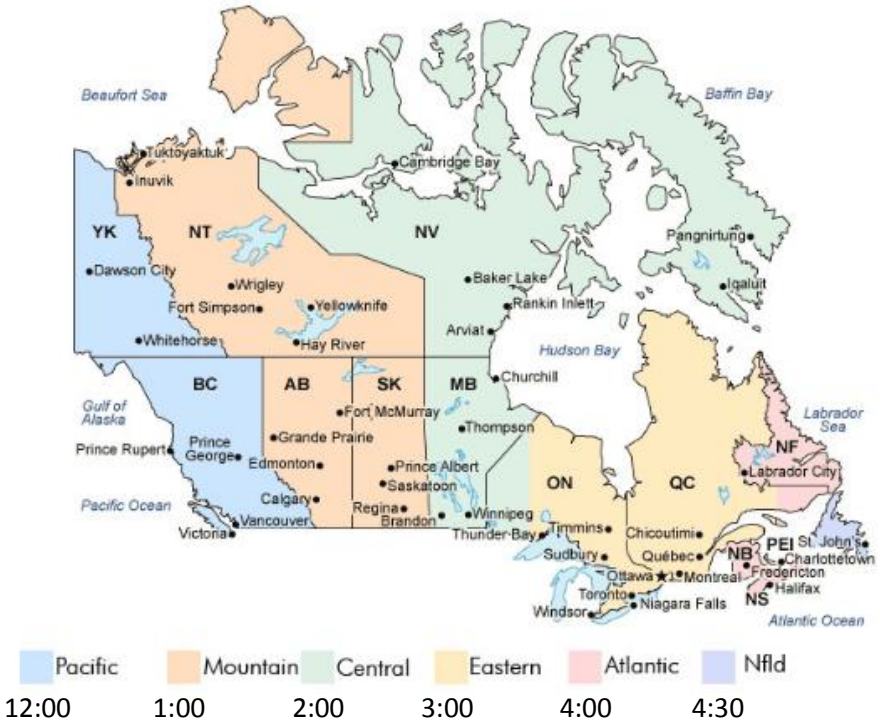
22. The map below shows the different time zones in Canada. Use the map to answer the following questions.



(a) How many time zones are there in Canada? _____ [1]

(b) The time is 3 pm in Wrigley and Sophie wants to ring her friend in Quebec, what time will it be there?

_____ [1]

(c) Graham is flying from Dawson City to Winnipeg. He leaves Dawson City at 11:00 am in the morning and the flight takes 2 hours. What time will it be (in Central Time) when he lands in Winnipeg? (make sure you show your working)

_____ [2]

Extra if finished: Try copying the following impossible solid!