

**Geometry and Time Test 2013**

Name \_\_\_\_\_ Class \_\_\_\_\_

[59 Marks]

1. a) Using the line shown below as the base draw an angle of  $55^\circ$  [1]
- b) label it as ABC using 3 point notation [1]
- c) state the type of angle it is.

ABC is \_\_\_\_\_ [1]

\_\_\_\_\_

2. Complete the table below by putting in X's where appropriate to describe the quadrilaterals named. The first one has been done for you.

Quadrilateral	All angles equal	1 pair of parallel sides	All sides equal	2 pairs of parallel sides
Rectangle	X			X
Square				
Trapezium				
Parallelogram				
Rhombus				

[4]

3. Fill in the missing words in the sentence below.

A regular polygon has \_\_\_\_\_ and \_\_\_\_\_ [2]

4. Fill in the table below.

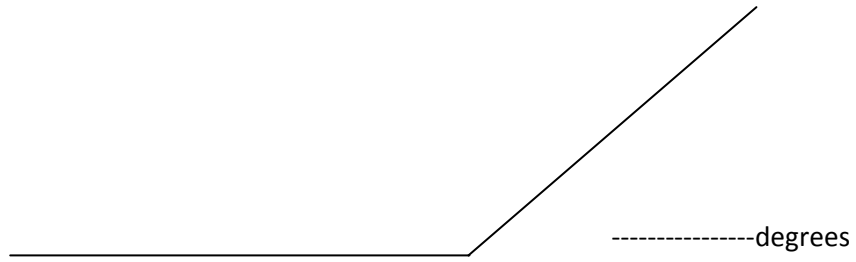
Polygon Name	Number of sides
pentagon	
decagon	
	6 sides
	7 sides
	9 sides

[5]

5.

a) Measure the angle shown and write its value in the space given.

[1]



b) Name the type of angle.

\_\_\_\_\_ [1]

6. a) In the space below draw a circle with a radius of 4cm.

The centre of the circle is already marked with an x and labeled O for you.

b) Draw in a radius and label it AO

c) Draw in a diameter and label it BC

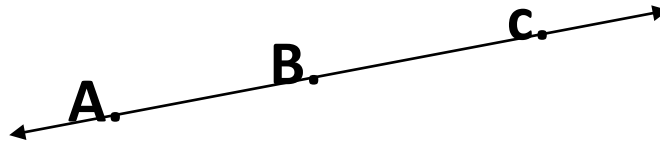
[3]

x **O**

7. In the space below using the correct notation and markings
- draw a **line**  $\overleftrightarrow{AB}$  that intersects with a **ray**  $\overrightarrow{CD}$ .
  - Mark the intersection of the line and the ray as E

[3]

8. From the line drawn below:



- a) Give 3 different names for the line shown below. Make sure to use the correct notation.

i) \_\_\_\_\_ ii) \_\_\_\_\_ iii) \_\_\_\_\_ [3]

- b) Name a line segment. \_\_\_\_\_ [1]

9. The major difference between a prism and a pyramid is that prisms have a \_\_\_\_\_ cross-section. (complete the sentence by writing in the missing word). [1]

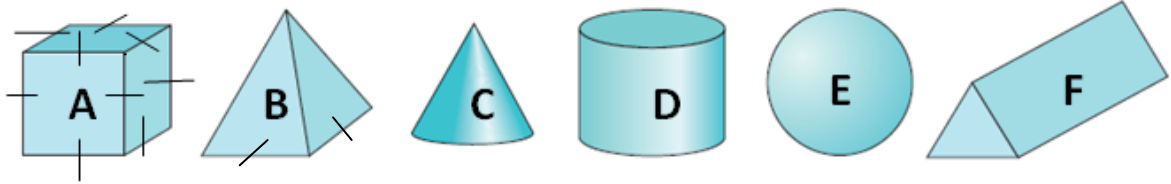
10. Guess the shape I have from the clues given.

- 7 faces
- 10 vertices
- 15 edges

\_\_\_\_\_ [1]

11.

a) Name each of the 3D figures shown below.



A= \_\_\_\_\_

B= \_\_\_\_\_

C= \_\_\_\_\_

D= \_\_\_\_\_

E= \_\_\_\_\_

F= \_\_\_\_\_ [6]

b) Draw net for **shape B**

c) How many vertices, edges and faces does **shape F** have?

Vertices \_\_\_\_\_ [1]

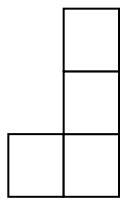
Edges \_\_\_\_\_ [1]

Faces \_\_\_\_\_ [1]

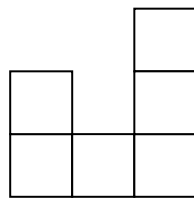
d) Draw an **oblique** projection of **shape A** in the space below.

[1]

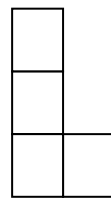
12. Below is the plan, front and end elevations of a shape made from cubes.



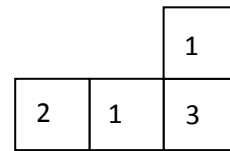
Left end



front



right end



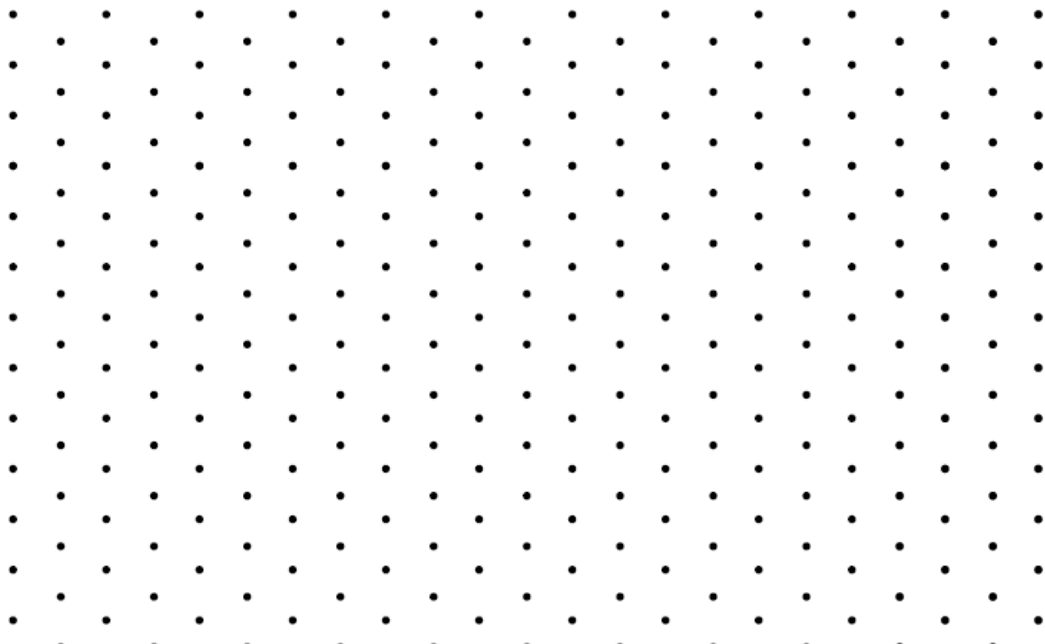
plan

a) Draw an oblique projection of the solid in the box below.



[2]

b) Draw an isometric projection of the same solid.



[2]

13. Complete the table below putting in the missing times.

12 hour time	24 hour time
3.15 pm	
	18.37
	0012
12.09pm	

[4]

14. A student has her first class at 8.30 am. Her bus normally picks her up by 8.10 am and it usually takes 15 minutes in the bus and then a 3 minute walk from the bus stop to school.

a) How many minutes early will she be if everything goes according to schedule?

\_\_\_\_\_ [1]

b) If the bus is 11 minutes late, what time will she arrive at school?

\_\_\_\_\_ [1]

15. Convert the left column to the units given in the right column:

42 days	weeks
120 hours	days
June	minutes
1 Leap year	days
1 century	years

[5]

16. Jono drives from Auckland to Wellington. He leaves Auckland at 9.15 am and arrives in Wellington at 6.23pm.

How long did he take to get to Wellington?

\_\_\_\_\_ [3]

17. Answer the question using the timetable below for trains in Wellington.

a) How many **minutes** does it take the 5.50 am train from Wellington Station to get to Pomare Station?

\_\_\_\_\_ [1]

b) What do you think NS means on the timetable?

\_\_\_\_\_ [1]

c) If you need to get to Naenae Station by 7.45am, what is the time of the latest train you can catch from Petone Station?

\_\_\_\_\_ [1]

Services:	HVL	HVL	HVL	HVL	HVL	HVL	HVL	HVL	HVL	HVL	HVL	HVL	HVL	HVL	HVL	HVL	HVL	
<b>Wellington Station</b> Stop: WELL Fare Zone: 1	5:45 am NS	5:50 am	6:05 am NS	6:10 am	6:30 am NS	6:44 am NS	6:46 am	7:05 am NS	7:08 am	7:25 am NS	7:37 am	7:45 am NS	8:05 am	8:35 am	9:05 am OP	9:35 am OP	10:05 am OP	10:35 am OP
<b>Kaiwharawhara Station</b> Stop: KAIW Fare Zone: 1		5:54 am		6:14 am			6:50 am		7:12 am		7:41 am		8:09 am	8:39 am	9:09 am OP	9:39 am OP	10:09 am OP	10:39 am OP
<b>Nauranga Station</b> Stop: NGAU Fare Zone: 1		5:57 am		6:17 am			6:53 am		7:15 am		7:44 am		8:12 am	8:42 am	9:12 am OP	9:42 am OP	10:12 am OP	10:42 am OP
<b>Petone Station</b> Stop: PETO Fare Zone: 4		6:02 am		6:22 am			6:58 am		7:20 am		7:49 am		8:17 am	8:47 am	9:17 am OP	9:47 am OP	10:17 am OP	10:47 am OP
<b>Ava Station</b> Stop: AVA Fare Zone: 4		6:04 am		6:24 am			7:00 am		7:22 am		7:51 am		8:19 am	8:49 am	9:19 am OP	9:49 am OP	10:19 am OP	10:49 am OP
<b>Woburn Station</b> Stop: WOBU Fare Zone: 4		6:07 am		6:27 am			7:03 am		7:25 am		7:54 am		8:22 am	8:52 am	9:22 am OP	9:52 am OP	10:22 am OP	10:52 am OP
<b>Waterloo Station</b> Stop: WATE Fare Zone: 4		6:10 am		6:30 am			7:06 am		7:28 am		7:57 am		8:25 am	8:55 am	9:25 am OP	9:55 am OP	10:25 am OP	10:55 am OP
<b>Epuni Station</b> Stop: EPUN Fare Zone: 5		6:12 am		6:32 am			7:08 am		7:30 am		7:59 am		8:27 am	8:57 am	9:27 am OP	9:57 am OP	10:27 am OP	10:57 am OP
<b>Naenae Station</b> Stop: NAEN Fare Zone: 5		6:14 am		6:34 am			7:10 am		7:32 am		8:01 am		8:29 am	8:59 am	9:29 am OP	9:59 am OP	10:29 am OP	10:59 am OP
<b>Wingate Station</b> Stop: WING Fare Zone: 5		6:16 am		6:36 am			7:12 am		7:34 am		8:03 am		8:31 am	9:01 am	9:31 am OP	10:01 am OP	10:31 am OP	11:01 am OP
<b>Taita Station</b> Stop: TAIT Fare Zone: 5	6:10 am NS	6:19 am	6:30 am NS	6:39 am	6:55 am NS	7:09 am NS	7:15 am	7:30 am NS	7:37 am	7:50 am NS	8:06 am	8:10 am NS	8:34 am	9:04 am	9:34 am OP	10:04 am OP	10:34 am OP	11:04 am OP
<b>Pomare Station</b> Stop: POMA Fare Zone: 5		6:21 am		6:41 am			7:17 am		7:39 am		8:08 am		8:36 am	9:06 am	9:36 am OP	10:06 am OP	10:36 am OP	11:06 am OP