

Mark Scheme

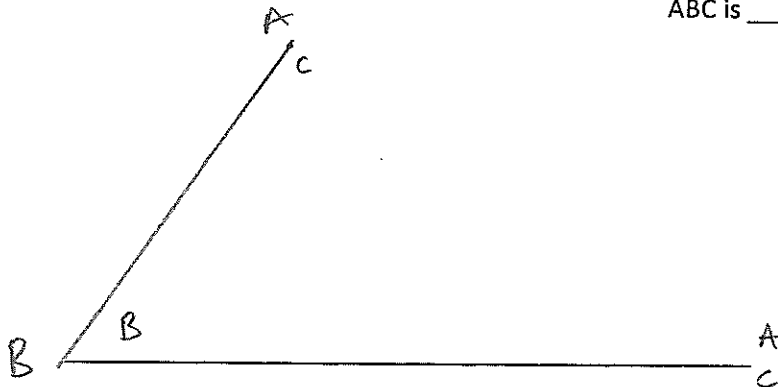
Geometry and Time Test 2013

Name _____ Class _____

60 [59 Marks]

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

ABC is Acute [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	X		X	X
Trapezium		X		
Parallelogram				X
Rhombus			X	X

3. Fill in the missing words in the sentence below. [4]

A regular polygon has equal sides and equal angles [2]

4. Fill in the table below.

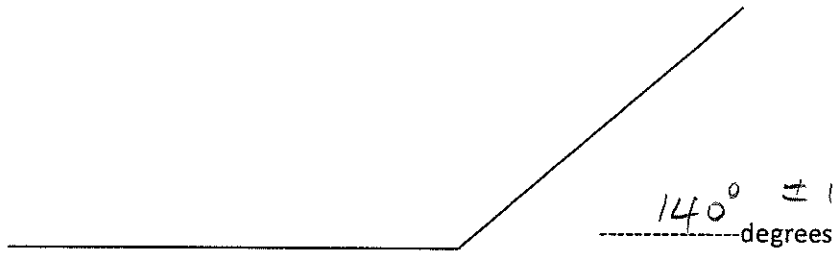
Polygon Name	Number of sides
pentagon	5
decagon	10
hexagon	6 sides
heptagon	7 sides
nonagon	9 sides

[5]

5.

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

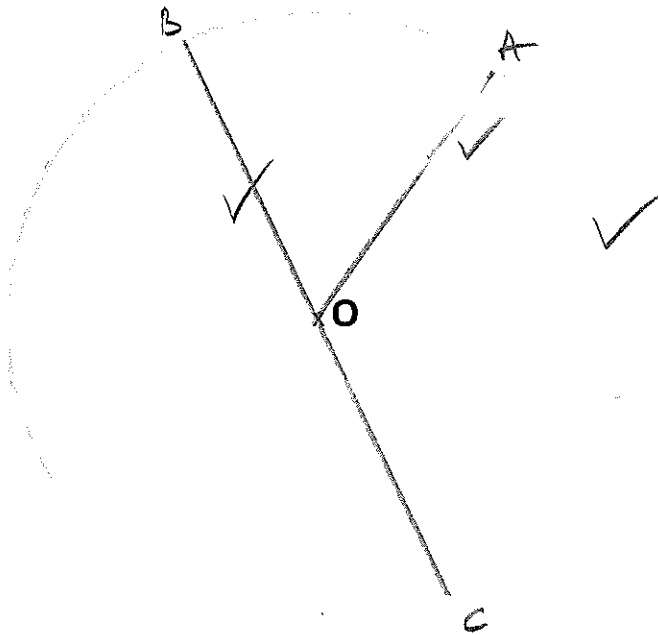
[1]



b) Name the type of angle.

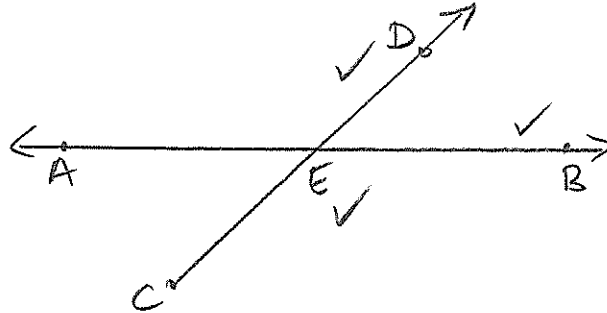
obtuse [1]

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]



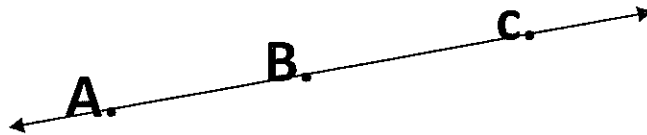
7. In the space below using the correct notation and markings

- 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) \overleftrightarrow{AB} ii) \overleftrightarrow{BA} iii) \overleftrightarrow{AC} etc *must have \leftrightarrow* [3]

b) Name a line segment.

\overline{AB} [1]

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

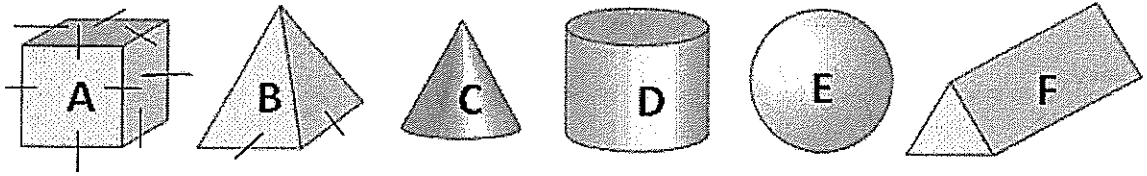
10. Guess the shape I have from the clues given.

- 7 faces
- 10 vertices
- 15 edges

pentagonal prism [1]
pentagon based prism

11.

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



A= Cube

C= Cone

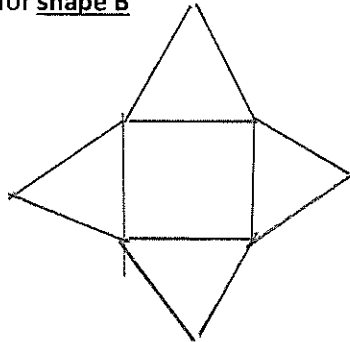
E= Sphere

B= Square based pyramid

D= Cylinder

F= Triangular based pyramid [6]

b) Draw net for shape B



[1]

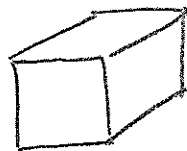
c) How many vertices, edges and faces does shape F have?

Vertices 6 [1]

Edges 9 [1]

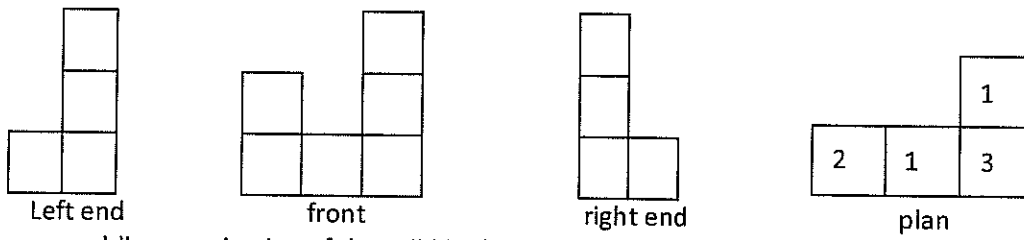
Faces 5 [1]

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

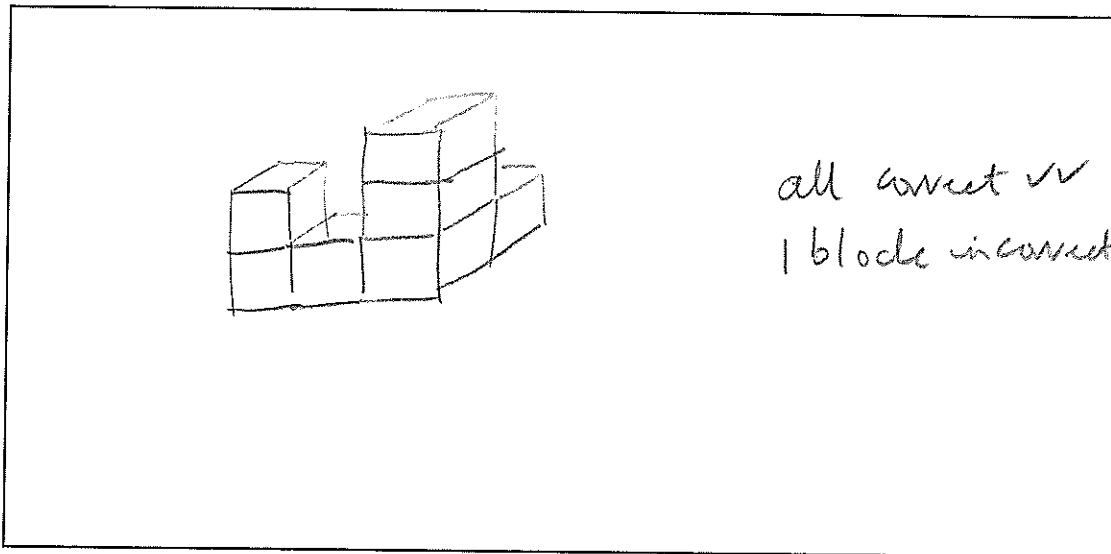


[1]

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

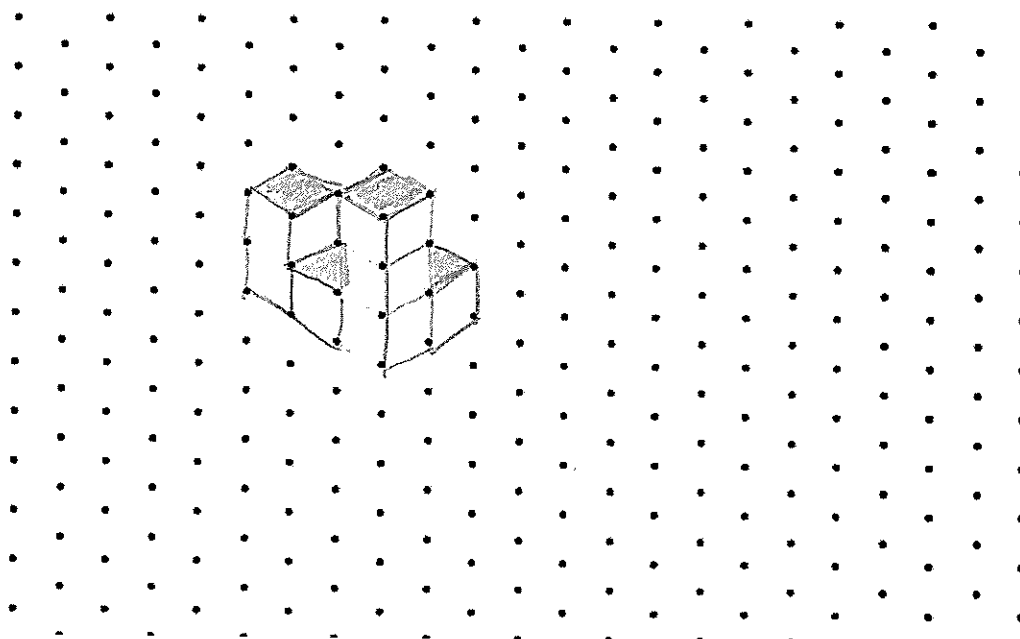


a) Draw an oblique projection of the solid in the box below.



b) Draw an isometric projection of the same solid.

[2]



all correct ✓
1 block incorrect ✓

[2]

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

12 hour time	24 hour time
3.15 pm	15.15
6.37 pm	18.37
0012 am	0012
12.09 pm	12.09

[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?

$$\begin{array}{r} 8.10 \\ + 15 \\ + 3 \\ \hline 8.28 \end{array}$$

2 mins [1]

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

$$\begin{array}{r} 8.28 \\ + 11 \\ \hline 8.39 \end{array}$$

8.39 am [1]

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

42 days	6 weeks
120 hours	5 days
June	43200 minutes
1 Leap year	366 days
1 century	100 years

[5]

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

How long did he take to get to Wellington?

$$\begin{array}{l} 9.15 \text{ am} > 15 \text{ min} \\ 10 \text{ am} > \\ 6 \text{ pm} > 6 \text{ hrs} \\ 6.23 > 23 \text{ min} \end{array}$$

6 hr 38 min [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?

5.50
6.21 > 31 min

31 min

[1]

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

Non stop

[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?

7.20am

[1]

Services:	HVL	HVL	HVL	HVL	HVL	HVL	HVL	HVL	HVL	HVL	HVL	HVL	HVL	HVL	HVL	HVL	HVL	HVL
Wellington Station 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
Kaiwharawhara Station 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
Ngauranga Station 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
Petone Station 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
Ava Station 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
Woburn Station 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
Waterloo Station 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
Epuni Station 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
Naenae Station 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
Wingate Station 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
Taita Station 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
Pomare Station 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

