



Sydney Distance Education High School

YEARS 7 & 8

Student's Name: _____
(First name) (Last name)

Part 2. Numeracy

Includes: Number
Measurement
Data representation
Space and Geometry
Patterns and Algebra

**This work needs to be completed and returned
with your enrolment application**

Instructions:

- **Calculators must not be used.**
- Show all your working.
- Spend approximately **1 hour** to attempt this work.
- Try and answer all questions.
- You need to do this work **by yourself**, without help from your supervisor.
- No resources or Internet are to be used.
- Read the instructions for each part before attempting the questions.
- Follow **all** instructions.
- A ruler and protractor are needed.

SUPERVISORS: Please complete the Supervisor's Section on the back page.

Show all working in the space provided. CALCULATORS SHOULD NOT BE USED.

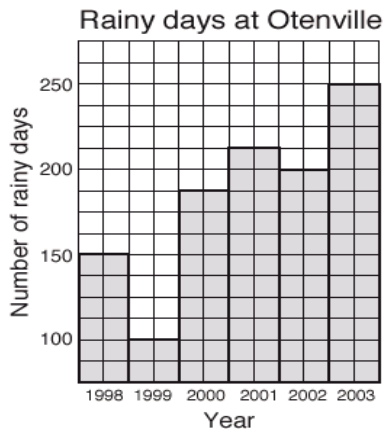
Number

<p>Q1.</p> <p>Find the sum of 21 and 68</p>	<p>Q4.</p> <p>Find 30% of \$80</p> <p>Answer: _____</p>
<p>Q2.</p> $\begin{array}{r} 74 \\ - 58 \\ \hline \\ \hline \end{array}$	<p>Q5.</p> $\frac{2}{3} = \frac{\square}{6}$ <p>Answer: $\square =$ _____</p>
<p>Q3.</p> $4 + 5 \times 7 =$	<p>Q6.</p> <p>If you share \$25 in a ratio of 2:3 the answer will be:</p> <ul style="list-style-type: none">a) \$15 : \$10b) \$5 : \$20c) \$20: \$5d) \$10 : \$15 <p>Circle the correct answer.</p>

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Data

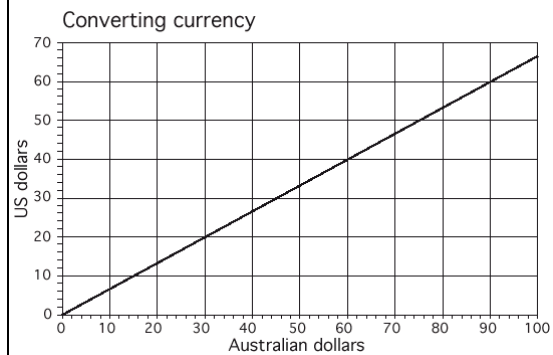
Q7.



How many rainy days were there at Otenville in 2002?

Answer: _____

Q10.



From the graph, how much is \$40 (US dollars) equal to in \$A (Australian dollars)?

Answer : _____

Q8.

City	Min. temp. (°C)	Max. temp. (°C)	Outlook
Amsterdam	10	17	rain
Athens	26	34	clear
Auckland	11	13	rain
Bali	23	28	cloudy
Beijing	17	24	mist
Beirut	27	31	cloudy

What is the maximum temperature in Bali on this day?

Answer: _____

Q11.

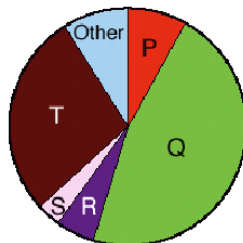
From the bar graph what is the most popular colour for a new car.



Answer: _____

Q9.

Element	Percentage by weight
Oxygen	46.6%
Silicon	27.7%
Aluminium	8.1%
Iron	5.0%
Calcium	3.6%
Other	9.0%



Which letter on the sector graph represents silicon?

Answer: _____

Q12.

The mean (average) weight of these four books.

4kg, 7kg, 5kg, 8kg is:

- 24kg
- 8kg
- 6kg
- 4kg

Circle the correct answer.

Show all working in the space provided. CALCULATORS SHOULD NOT BE USED.

Measurement

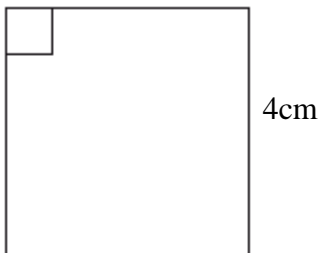
Q13.

Use a ruler to measure the length of this line.



Answer: _____

Q14.



If one side of this square is 4cm, what is the perimeter of the square?

Answer: _____

Q15.

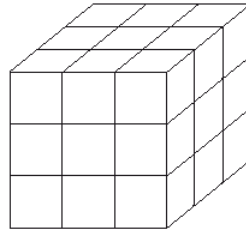
How tall could a man be?

- a) 164 mm
- b) 164 cm
- c) 16.4 m
- d) 0.164 km

Circle the correct answer.

Q16.

The volume of this rectangular prism is:



- a) 9 cubes
- b) 12 cubes
- c) 27 cubes
- d) 36 cubes

Circle the correct answer.

Q17.

The following timetable is for a bus.

John Street	8:25 am
Main Road	8:47 am
Railway	8:51 am
School	9:02 am

How long does it take to travel from Main Road to School?

Answer: _____

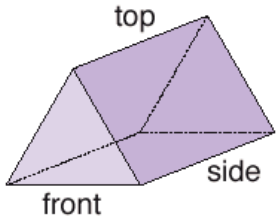
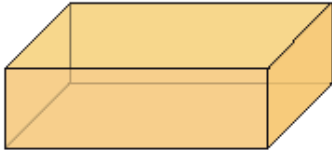
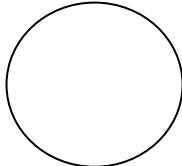
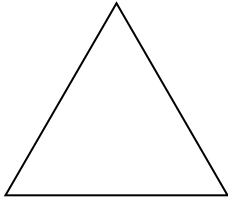
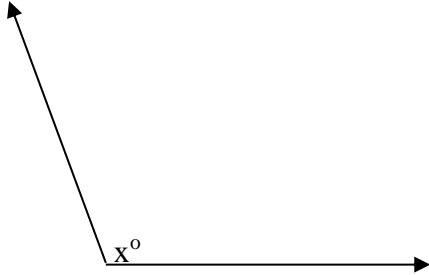
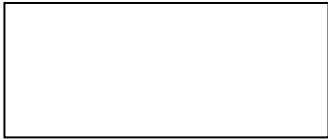
Q18.

Write the time 2:35 pm in 24 hour time.

Answer _____

Show all working in the space provided. CALCULATORS SHOULD NOT BE USED.

Space and Geometry

<p>Q19.</p>  <p>Draw the view that you would see from the front of this triangular prism.</p>	<p>Q22.</p>  <p>This shape is a:</p> <ul style="list-style-type: none">a) Square Pyramidb) Rectangular prismc) Hexagond) Triangular prism <p>Circle the correct answer.</p>
<p>Q20.</p>  <p>The distance around a circle is called:</p> <ul style="list-style-type: none">a) Sectorb) Radiusc) Circumferenced) Chord <p>Circle the correct answer.</p>	<p>Q23.</p>  <p>This triangle has two sides of equal length. Its correct name is:</p> <ul style="list-style-type: none">a) Scalene triangleb) Obtuse trianglec) Isosceles triangled) Reflex triangle <p>Circle the correct answer.</p>
<p>Q21.</p> <p>Use a protractor to measure the size of angle x</p>  <p>Answer: _____</p>	<p>Q24.</p>  <p>On this scale drawing, one side of the rectangle is 4cm. If the scale is 1cm:7m then how long is that side in real life?</p> <p>Answer: _____</p>

Show all working in the space provided. CALCULATORS SHOULD NOT BE USED.

Patterns and Algebra

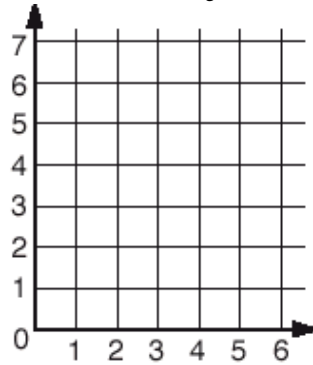
Q25.

Determine the next three numbers in this sequence:

3, 7, 11, ____, ____, ____

Q28.

On this graph, plot the points A (1,3) and B (4,5), then join A to B.



Q26.

Describe, in words, how this pattern is formed.

2, 6, 18, 54,.....

Answer: _____

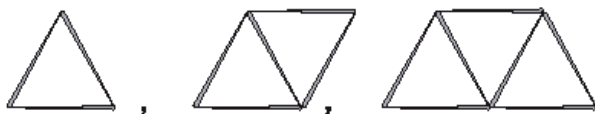
Q29.

Simplify $5a - 3a$:

- a) $8a$
- b) $5a$
- c) $2a$
- d) 2

Circle the correct answer.

Q27.



Continue this pattern by drawing the next shape.

Q30.

$a = 4$ and $b = 10$

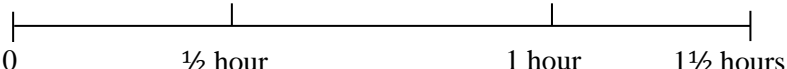
Using these values substitute and evaluate the value of Δ

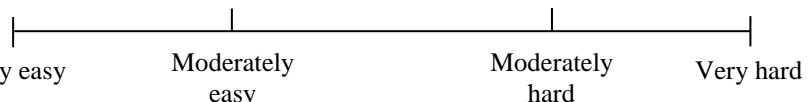
$$2a + 3b = \Delta$$

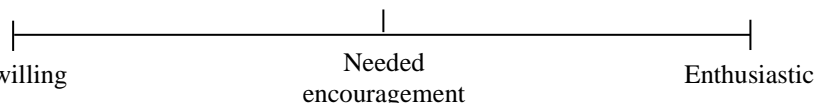
Answer: $\Delta =$ _____

Supervisor's Section

Please complete. Tick where most appropriate.

1. Work was completed in 

2. Student found the work 

3. Student participation 

4. Student completed work independently student needed assistance

If the student needed assistance please indicate the level of assistance given

Any further comment