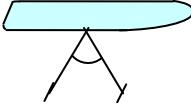
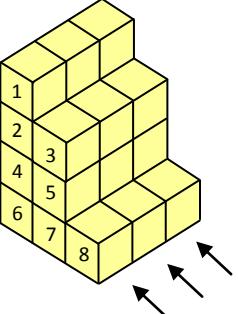
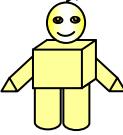
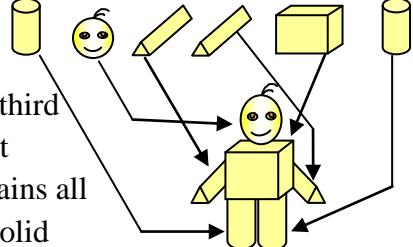
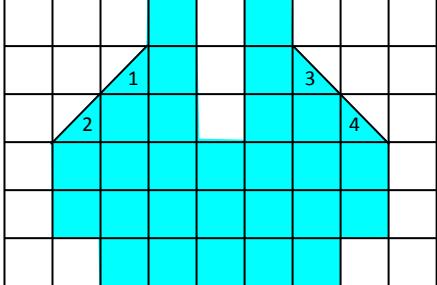
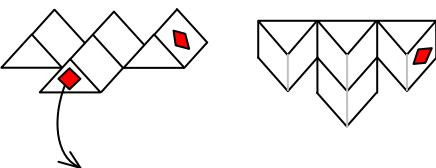
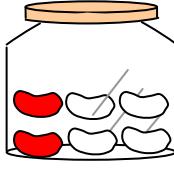
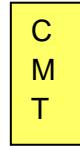


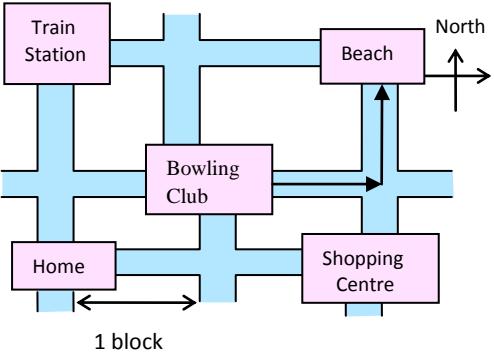
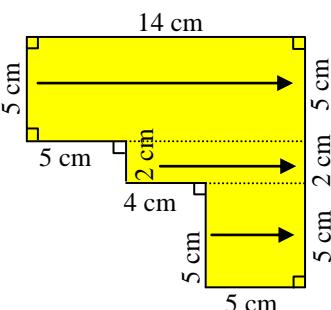
YEAR 5 – PAPER 8

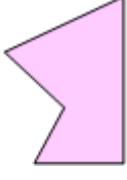
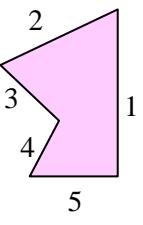
NUMERACY WORKED SOLUTIONS

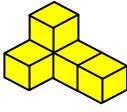
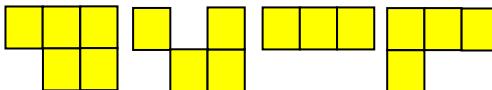
ANSWER	EXPLANATION	AUSTRALIAN CURRICULUM REFERENCE A student can:
1 2045	This number needs 2 in the thousands column, 0 in the hundreds column, 4 in the tens and 5 in the units column.	recognise, represent and order numbers to at least tens of thousands. (ACMNA072)
2 $\frac{2}{5}$	2 out of the 5 cards have a koala on them.	investigate equivalent fractions used in contexts. (ACMNA077)
3 	The second ironing board has the smallest angle at the point where the legs meet the board.	compare angles. (ACMMG089)
4 43	To find the next number in the pattern add 7 to the previous term.	describe, continue and create patterns with fractions, decimals and whole numbers resulting from addition. (ACMNA107)
5 24	 There are 8 cubes in each of the three layers, so there are $8 \times 3 = 24$ cubes.	compare objects using familiar metric units of area and volume. (ACMMG290)
6 	 The third robot contains all six solid shapes.	connect three-dimensional objects with two-dimensional representations. (ACMMG111)
7 950	$1150 - 200 = 950$	continue and create patterns with fractions, decimals and whole numbers resulting from subtraction. (ACMNA107)

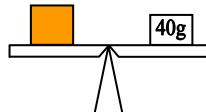
8	29	 <p>There are 27 completely shaded squares. The 4 shaded half squares are numbered and are equivalent to 2 squares. The total number of shaded squares in the shape is $27 + 2 = 29$.</p>	<p>compare the areas of regular and irregular shapes by informal means. (ACMMG087)</p>																				
9	36	<table border="1" data-bbox="470 822 946 1024"> <thead> <tr> <th colspan="4">Physical Activities</th> </tr> <tr> <th></th> <th>Less than 8 hours</th> <th>8 hours or more</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Girls</td> <td>32</td> <td>30</td> <td>62</td> </tr> <tr> <td>Boys</td> <td>22</td> <td>36</td> <td>58</td> </tr> <tr> <td>Total</td> <td>54</td> <td>66</td> <td>120</td> </tr> </tbody> </table> <p>Read the table across the “Boys” row and down the “8 hours or more” column.</p>	Physical Activities					Less than 8 hours	8 hours or more	Total	Girls	32	30	62	Boys	22	36	58	Total	54	66	120	<p>describe and interpret different data sets in context. (ACMSP120)</p>
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10	8	<p>The rectangular pyramid had 5 faces as did the triangular prism. The bases of these two shapes were glued together, leaving $5 + 5 - 2 = 8$ faces exposed.</p>	<p>construct simple prisms and pyramids. (ACMMG140)</p>																				
11	906	$\begin{array}{r} 906 \\ \hline 7) 6342 \end{array}$	<p>solve problems involving division by a one digit number. (ACMNA101)</p>																				
12	\$3.70	<p>The pineapple cost \$3.35 plus she got 35c change. This made a total of $\\$3.35 + \\$0.35 = \\$3.70$.</p>	<p>solve problems involving purchases and the calculation of change. (ACMNA080)</p>																				
13	68 mm	<p>The length of the candle is $91 - 23 = 68$ mm</p>	<p>use scaled instruments to measure and compare lengths. (ACMMG084)</p>																				

14	12	$6 \times 8 = 48$, $48 \div 4 = 12$	recall multiplication facts up to 10 $\times 10$ and related division facts. (ACMNA075)
15	5	As there is a middle flower, then the number of flowers must be odd. The only odd number in the options is 5.	use am and pm notation and solve simple time problems. (ACMMG086)
16		  The first solid shows Peter's shape standing on the triangular face with a red diamond on it.	connect three-dimensional objects with two-dimensional representations. (ACMMG111)
17	75	$\$6.00 = 3 \times \2 , so the greatest number of marbles that can be bought is $3 \times 25 = 75$ marbles	develop efficient mental and written strategies for multiplication. (ACMNA076)
18		 The first jellybean jar has two out of six chances of a red jellybean. This indicates it is unlikely but not impossible to get a red jellybean from this jar without looking.	describe possible everyday events and order their chances of occurring. (ACMSP092)
19	Fewer students use trains than cars.	10 students use bikes, 90 travel by car, 30 travel by bus and 60 travel by train. Hence, fewer students use trains than cars.	describe and interpret different data sets in context. (ACMSP120)
20	$\$700 + \$400 + \$600$	$\$698 \approx \700 , $\$404 \approx \400 and $\$596 \approx \600 , hence the best estimate is $700 + \$400 + \600 .	use efficient mental and written strategies to solve problems. (ACMNA291)
21		C, M and T have one line of symmetry. I and H have two lines of symmetry. N has no lines of symmetry.	create symmetrical patterns, pictures and shapes. (ACMMG091)

22	Beach	 <p>One block east is one block to the right. One block north is one block up to the Beach.</p>	<p>describe routes using landmarks and directional language. (ACMMG113)</p>
23	0.06, 0.19, 0.2	<p>It is easiest to compare decimals when they are all written with the same number of decimal places. That is 0.20, 0.06 and 0.19. So the order is 0.06, 0.19 and 0.20</p>	<p>compare, order and represent decimals. (ACMNA105)</p>
24	100	<p>To cause the decimal point to move two places to the left you must divide by 100.</p>	<p>multiply and divide decimals by powers of 10. (ACMNA130)</p>
25	52 cm	 <p>The perimeter is the sum of all the sides around the shape. Hence, $P = 14 + 5 + 2 + 5 + 5 + 4 + 2 + 5 + 5 = 52 \text{ cm.}$</p>	<p>calculate the perimeter and area of rectangles using familiar metric units. (ACMMG109)</p>
26	Susan	<p>Using the scale, Rebecca is about 8 m away, Victoria is about 12 m away, Susan is about 20 m away, and Tanya is about 28 m away.</p>	<p>use simple scales, legends and directions to interpret information contained in basic maps. (ACMMG090)</p>

27	1375 mL	<p>Each division of the scale is $100 \div 4 = 25$ mL.</p> <p>There are 175 mL of milk in the cup and 1.2 L (1200 mL) in the bottle. Hence, the amount of milk in the bottle when it was full is $1200 + 175 = 1375$ mL.</p>	<p>convert between common metric units of length, mass and capacity. (ACMMG136)</p>
28	Paul	<p>Each of the horizontal lines on the graph are 0.1 m apart. Find 1.65 m on the vertical scale and draw a horizontal line. It passes closest to the top of Paul's head.</p>	<p>solve problems involving the comparison of lengths and areas using appropriate units. (ACMMG137)</p>
29	1 out of 3	<p>There are 4 cards with planes on them out of a total of 12 cards. 4 out of 12 is the same as 1 out of 3.</p>	<p>describe probabilities using fractions, decimals and percentages. (ACMSP144)</p>
30		<p>The second shape is the only one with 5 sides so it is the only pentagon.</p> 	<p>compare and describe two dimensional shapes. (ACMMG088)</p>
31	72 m ²	<p>The bird enclosure covers 8 squares, so each square is $48 \div 8 = 6$ m². The dolphin pool covers 12 squares so it is $12 \times 6\text{m}^2 = 72\text{m}^2$.</p>	<p>calculate the area of rectangles using familiar metric units. (ACMMG109)</p>
32	4 hundreds + 8 ones + 2 tenths	<p>4 hundreds, 0 tens, 8 ones and 2 tenths.</p>	<p>compare, order and represent decimals. (ACMNA105)</p>
33	1 hour 40 minutes	<p>From 5:30 until 6:30 there is 1 hour. From 6:30 until 7:00 there are 30 minutes. From 7:00 until 7:10 there are 10 minutes. Hence, the total time Tania spent swimming was $1 \text{ hour} + 30 \text{ min} + 10 \text{ min}$ $= 1 \text{ hour and 40 minutes.}$</p>	<p>convert between units of time. (ACMMG085)</p>

34	10	<p>Prince park and Newland Park together are a quarter of the total which is $120 \div 4 = 30$.</p> <p>Newland gets about twice as many as Prince Park, so in Newland Park there are 20 trees and Prince Park there are 10 trees.</p>	<p>interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables. (ACMSP147)</p>
35		<p>The top view of the 4 solids are shown below.</p>  <p>Only the fourth solid has the correct view from the top.</p>	<p>connect three-dimensional objects with their nets and other two-dimensional representations. (ACMMG111)</p>
36	$\begin{array}{r} 892 - 238 \\ \hline = 654 \end{array}$	<p>In the units column, something take away 8 equals 4.</p> <p>As $12 - 8 = 4$, there must be a 2 in the units column.</p> <p>Therefore, $89\Box - 238 = 892$</p> <p>Now, $892 - 238$</p> $\begin{array}{r} 892 \\ - 238 \\ \hline 654 \end{array}$	<p>use efficient mental and written strategies to solve problems. (ACMNA291)</p>
37	5.2 m	<p>To find the number halfway between two numbers, add the numbers together and divide the result by 2.</p> <p>The sum of the height of the smallest and the height of the tallest giraffe is $5.6 + 4.8 = 10.4$ m.</p> <p>Therefore, the height of the middle giraffe is $10.4 \div 2 = 5.2$ m.</p>	<p>use efficient mental and written strategies to solve problems. (ACMNA291)</p>

38	Triangular prism	<p>The numbers of faces and edges of each of the solids named are listed below.</p> <p>A rectangular pyramid has 5 faces, 8 edges.</p> <p>A rectangular prism has 6 faces, 12 edges.</p> <p>A triangular pyramid has 4 faces, 6 edges.</p> <p>A triangular prism has 5 faces, 9 edges.</p>	<p>connect three-dimensional objects with their nets and other two-dimensional representations.</p> <p><u>(ACMMG111)</u></p>
39	20	<p>As Patrick has 30 votes, the total number of votes for Kevin and David is $80 - 30 = 50$ votes.</p> <p>Kevin has more votes than David.</p> <p>David has less than half of the votes, which is less than 25.</p> <p>Hence, the correct answer from the alternatives provided must be 20.</p>	<p>use efficient mental and written strategies to solve problems.</p> <p><u>(ACMNA291)</u></p>
40		<p>The weight of the unknown box is less than 30. Since 50g and 40g are both heavier than 30g, then last three diagrams are all possible.</p> <p>Only the first diagram is not possible.</p>	<p>use efficient mental and written strategies to solve problems.</p> <p><u>(ACMNA291)</u></p>