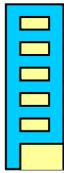
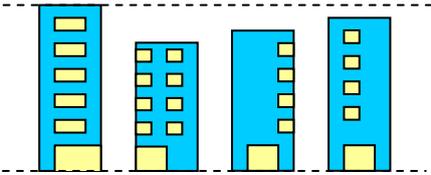
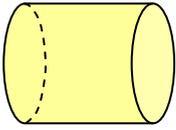
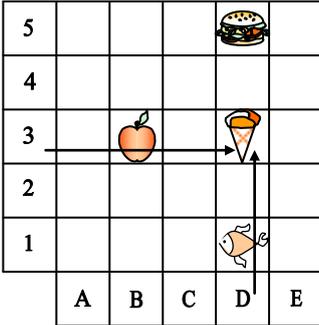
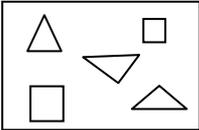
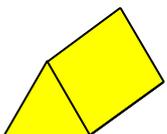
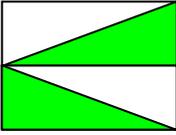
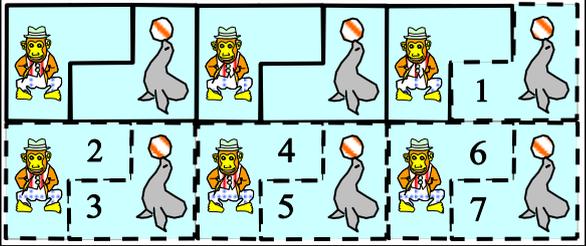
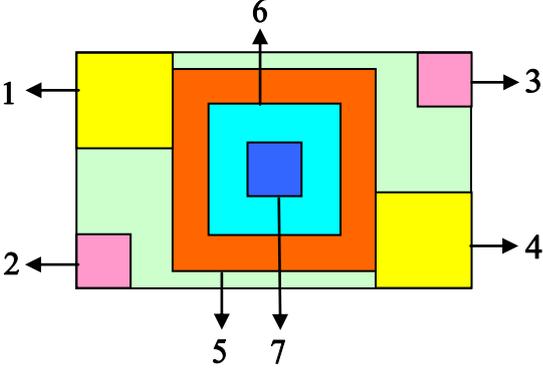
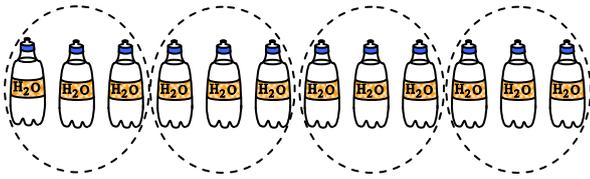
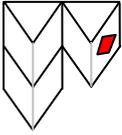


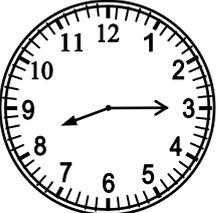
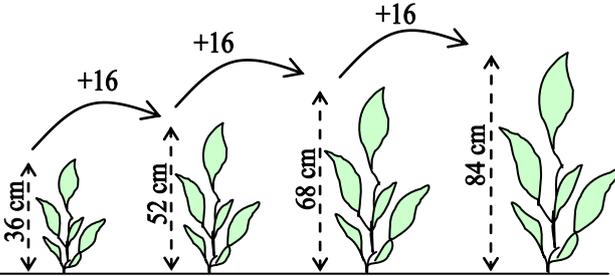
YEAR 3 – PAPER 6
NUMERACY WORKED SOLUTIONS

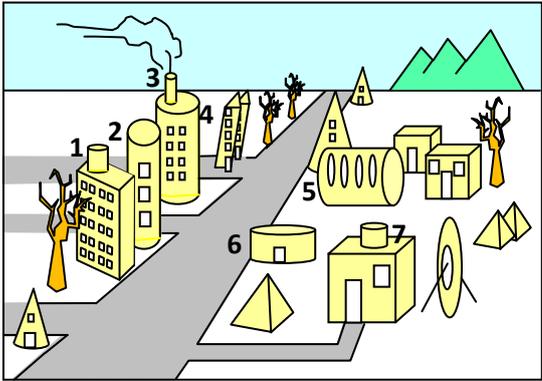
	ANSWER	EXPLANATION	Australian Curriculum Reference A student can
1	The first building 	 By drawing 2 horizontal lines, it can be seen that all buildings begin at the same level and the first building is the tallest.	compare and order several shapes and objects based on length, using appropriate uniform informal units. (ACMMG037)
2	The first shape. 	A cylinder has the same size circular ends.	describe the features of three-dimensional objects. (ACMMG043)
3	\$4.10	\$2 and \$1 make \$3. A 50 cent and three 20 cent make \$1.10. Therefore, the total value of the coins is $\$3 + \$1.10 = \$4.10$	count and order small collections of Australian coins and notes according to their value. (ACMNA034)
4	Two hundred and five dollars	There is a 2 in the hundreds column and a 5 in the units column. This means the price of this bike is two hundred and five dollars.	recognise, model, represent and order numbers to at least 1000. (ACMNA027)
5		As we can see, the ice cream cone is at D3. 	create and interpret simple grid maps to show position and pathways. (ACMMG065)

6		Locate the middle row and the second from the right.	identify the relative positions of key features. (ACMMG044)
7		The second group of shapes in the top row has three triangles and two squares.	describe and draw two-dimensional shapes. (ACMMG042)
8	A rectangular pyramid and a rectangular prism	The bottom is a rectangular prism and the top is a rectangular pyramid.	describe the features of three-dimensional objects. (ACMMG043)
9	78	John has $84 - 6 = 78$ more marbles than Paul.	solve simple subtraction problems using a range of efficient mental and written strategies. (ACMNA030)
10	\$25	James saved \$8. Peter saved \$17. Together they saved $\$8 + \$17 = \$25$	solve simple addition problems using a range of efficient mental and written strategies. (ACMNA030)
11	4 times 6	There are 4 packets, each having 6 hair bands. So, there are 4 lots of 6, which is the same as 4 times 6.	recognise and represent multiplication as repeated addition, groups and arrays. (ACMNA031)
12	 The 4 th solid	The front view matches the 1 st , 3 rd and 4 th solids. The top view matches the 2 nd and 4 th solids. So it is the 4 th solid.	make models of three-dimensional objects and describe key features. (ACMMG063)
13	2	Three coins have a value of 40 cents only if one is a 20 cent coin and the other two are 10 cent coins.	count and order small collections of Australian coins and notes according to their value. (ACMNA034)

14		<p>The second rectangle can be formed by turning the lower portion.</p>	<p>investigate the effect of one-step slides and flips. (ACMMG045)</p>
15	7	 <p>As shown in the diagram, 7 stickers of this sheet are missing.</p>	<p>describe and draw two-dimensional shapes. (ACMMG042)</p>
16	24	<p>Each cake will have 4 quarters so there are 6 lots of 4, which is 24 quarters.</p>	<p>recognise and interpret common uses of halves and quarters of shapes and collections. (ACMNA033)</p>
17	7	 <p>As shown in the diagram, there are 7 squares in this picture.</p>	<p>describe and draw two-dimensional shapes. (ACMMG042)</p>
18	550	<p>The next number is $650 - 100 = 550$.</p>	<p>describe patterns with numbers and identify missing elements. (ACMNA035)</p>
19	Joanne	<p>Both Amanda and Tania scored greater than 17, and Susan scored less than 13. Only Joanne scored 15, which is greater than 13 and less than 17.</p>	<p>create displays of data using lists and tables and interpret them. (ACMSP050)</p>

20	12	<p>There are 3 stacks of 3 cubes, a stack of 2 cubes and 1 single cube.</p> <p>Hence, the total number of cubes used to form this solid is</p> $3 + 3 + 3 + 2 + 1 = 12$	<p>compare and order several shapes and objects based on volume using appropriate uniform informal units.</p> <p>(ACMMG037)</p>
21	April	<p>February has 28 or 29 days, and July and August each have 31 days.</p> <p>Only April has 30 days.</p>	<p>determine the number of days in each month.</p> <p>(ACMMG041)</p>
22	12:00	<p>An hour after 10:30 is 11:30, and half an hour later the time will be 12:00.</p>	<p>tell time to the minute and investigate the relationship between units of time.</p> <p>(ACMMG062)</p>
23	3	 <p>As shown in the diagram, by making 4 equal groups, each group will contain 3 bottles.</p> <p>Hence, each player will receive 3 bottles.</p>	<p>develop efficient mental and written strategies for division where there is no remainder.</p> <p>(ACMNA076)</p>
24		<p>Only the first shape is possible.</p>	<p>investigate the effect of one-step slides and flips.</p> <p>(ACMMG045)</p>
25	\$5.00	<p>He gave the shopkeeper</p> $\$4.15 + \$0.85 = \$5.00$	<p>represent money values in multiple ways and count the change required for simple transactions to the nearest five cents.</p> <p>(ACMNA059)</p>

26		<p>Only the first clock-face shows 8:15, which is the time that Anthony reached school.</p>	<p>tell time to the minute and investigate the relationship between units of time. (ACMMG062)</p>
27	84 cm	 <p>As shown, the height of the plants are increasing by 16 cm, so the height of the tallest plant is $68 + 16 = 84\text{cm}$.</p>	<p>solve simple addition and subtraction problems using a range of efficient mental and written strategies. (ACMNA030)</p>
28	20	<p>\$4 is 4 lots of \$1, so 4 bags can be bought. Hence, the number of lollies that can be bought is 4 lots of 5 lollies, which is 20 lollies.</p>	<p>represent and solve problems involving multiplication using efficient mental and written strategies. (ACMNA057)</p>
29	Fewer students use buses than cars.	<p>10 use bikes, 90 travel by car, 30 travel by bus and 60 travel by train. Hence, fewer students use buses than cars.</p>	<p>interpret and compare data displays. (ACMSP070)</p>
30		<p>There are four different pieces of fruit in the pattern.</p>  <p>1 2 3 4 ↓ ↓ ↓ ↓ 5 6 7 8 ↓ ↓ ↓ ↓ 9 10 11 12 ↓ ↓ 13 14</p> <p>As shown, the 14th fruit is an apple.</p>	<p>investigate and describe number patterns formed by skip counting and patterns with objects. (ACMNA018)</p>

31	80 loaves	<p>The shop sold four of  on Monday.</p> <p>As each  = 20 loaves, so the shop sold 4 lots of 20 loaves, which is 80 loaves.</p>	<p>interpret and compare data displays. (ACMSP070)</p>
32	\$3.40	<p>The total cost of the juice and the milk is $\\$2.75 + \\$3.85 = \\$6.60$.</p> <p>Hence, Peter and Donna received $\\$10 - \\$6.60 = \\$3.40$ change.</p>	<p>represent money values in multiple ways and count the change required for simple transactions. (ACMNA059)</p>
33	6 in the small vase and 11 in the large one	<p>If Grace first put the 5 additional roses in the larger vase, she will still have $17 - 5 = 12$ roses.</p> <p>She then put $12 \div 2 = 6$ roses in each vase.</p> <p>So 6 roses will be placed in the small vase, and $6 + 5 = 11$ in the larger vase.</p>	<p>represent and solve problems involving multiplication using efficient mental and written strategies. (ACMNA057)</p>
34	<p>Second spinner</p> 	<p>The chance of winning the ring in the second spinner is greater than $\frac{1}{2}$.</p> <p>In the other three spinners the chance is exactly $\frac{1}{2}$.</p> <p>Hence, the best chance for Helen is to spin the second spinner.</p>	<p>conduct chance experiments, identify and describe possible outcomes and recognise variation in results. (ACMSP067)</p>
35	7	 <p>As shown, Peter used 7 cylinders.</p>	<p>make models of three-dimensional objects and describe key features. (ACMMG063)</p>