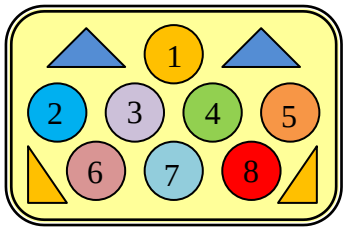
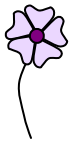
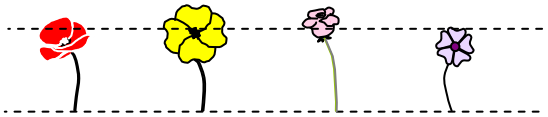
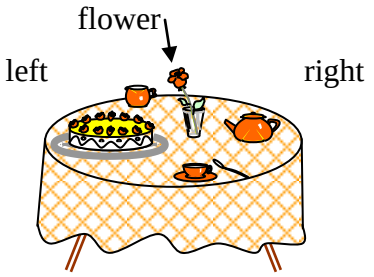
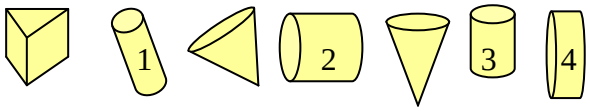
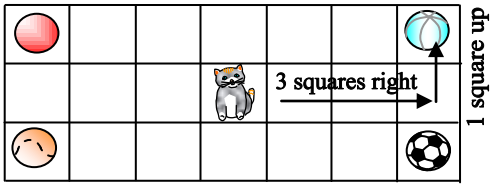
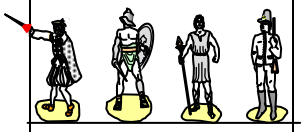
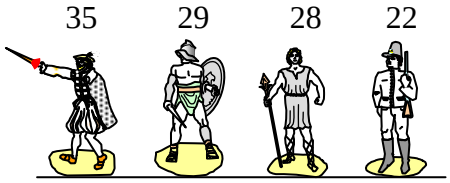
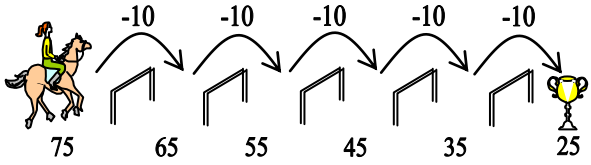
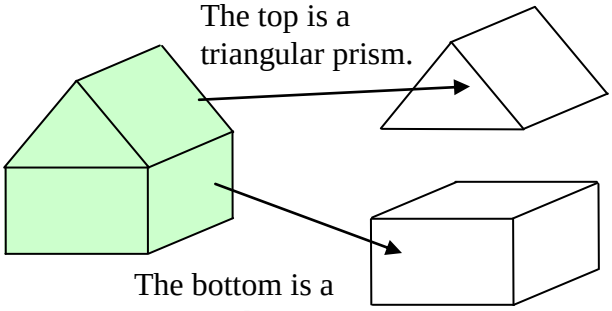
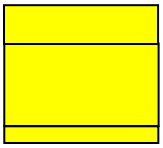
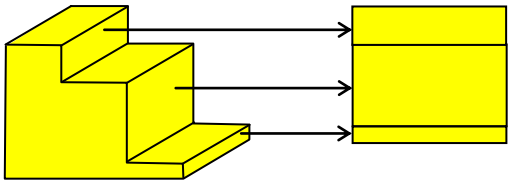
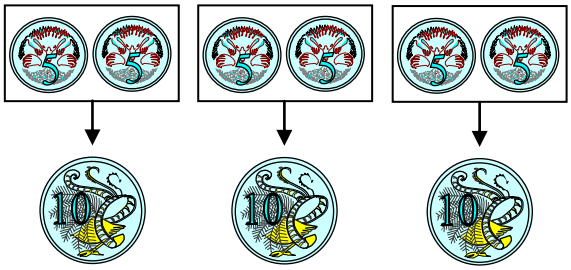
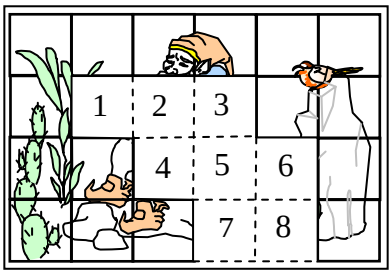
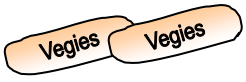
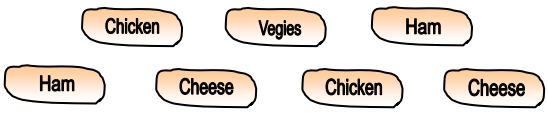
YEAR 3 – PAPER 2

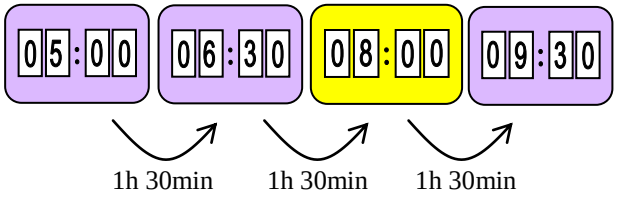
NUMERACY WORKED SOLUTIONS

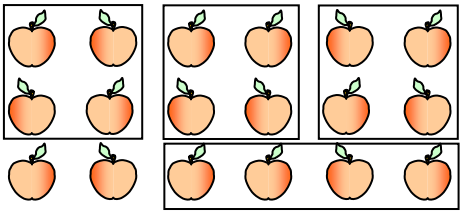
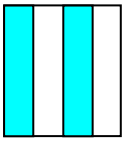
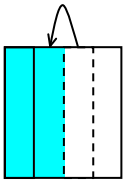
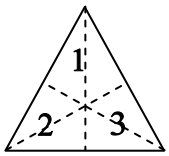
	ANSWER	EXPLANATION	Australian Curriculum Reference A student can
1	2	Sunny Bonny From the diagram we can see that Sunny has eaten 2 more carrots than Bonny.	create displays of data using picture graphs and interpret them. (ACMSP050)
2	<table><tr><td colspan="2">Game Points</td></tr><tr><td>Kevi</td><td>𝍸 𝍸 ||</td></tr><tr><td>Jame</td><td>|||</td></tr></table>	| represents 1 and 𝍸 represents 5. So 12 would be represented by 𝍸 𝍸 ||, and 3 would be represented by |||. Only the fourth table shows their scores.	create displays of data using tables and interpret them. (ACMSP050)
3	8	As shown, there are 8 circles in the picture. 	recognise and classify familiar two-dimensional shapes using obvious features. (ACMMG022)
4		 By drawing 2 horizontal lines, it can be seen that all the flowers begin at the same level and the fourth flower is the shortest.	compare and order several shapes and objects based on length using appropriate uniform informal units. (ACMMG037)
5			identify the relative positions of key features. (ACMMG044)

6	4	 As shown, four of the solids are cylinders.	recognise and classify familiar three-dimensional objects using obvious features. (ACMMG022)
7		 As shown, the kitten moves 3 squares to the right and then one square up to get .	create and interpret simple grid maps to show position and pathways. (ACMMG065)
8		John ordered the warriors, starting from the warrior with the most number of votes to the least, as shown. Number of votes 	order numbers to at least 1000. (ACMNA027)
9	25	As shown, for each jump the number pattern goes down by 10. So the cup is at 25. 	describe, continue, and create number patterns resulting from performing addition or subtraction. (ACMNA060)
10	7	If 18 – ☐ = 11 then ☐ + 11 = 18 So the box must represent 7.	explore the connection between addition and subtraction. (ACMNA029)

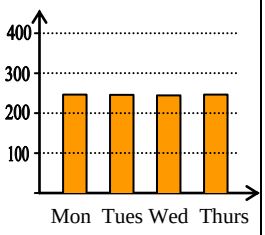
11	a triangular prism.	The top is a triangular prism.  The bottom is a rectangular prism.	describe the features of three-dimensional objects. (ACMMG043)
12		The arrows show where the faces of the solid appear when viewed from the side. 	make models of three-dimensional objects and describe key features. (ACMMG063)
13	Five hundred and twenty dollars	There is a 5 in the hundreds column and a 2 in the tens column. This means that the price of this laptop is five hundred and twenty dollars.	recognise, model, represent and order numbers to at least 1000. (ACMNA027)
14	3	Every two 5 cent coins make one 10 cent coin. So David can get three 10 cent coins for his six 5 cent coins, as shown. 	count and order small collections of Australian coins according to their value. (ACMNA034)
15	27	The total number of animals that Tania saw at The Magic Circus was 5 + 4 + 7 + 4 + 7 = 27	create displays of data using a table and interpret them. (ACMSP050)
16	208	100 + 100 = 200 and 200 + 8 = 208	solve simple addition problems using a range of efficient mental and written strategies. (ACMNA030)

17	50	The highest mark scored is 95. The lowest mark scored is 45. So the difference between these marks is 95 – 45 = 50.	solve simple subtraction problems using a range of efficient mental and written strategies. (ACMNA030)
18	6 + 6 + 6	Only 6 + 6 + 6 gives a total 18, which is between 16 and 19. All other options give a total higher than 19 or lower than 16, as shown. 7 + 7 + 7 = 21 5 + 5 + 5 = 15 4 + 4 + 4 = 12	solve simple addition problems using a range of efficient mental and written strategies. (ACMNA030)
19	8	There are 8 pieces missing, as shown in the picture. 	describe and draw two-dimensional shapes. (ACMMG042)
20	56	Johnny took 8 cookies and the jar now contains 48 cookies. So, at the start the jar contained 48 + 8 = 56 cookies.	solve simple addition and subtraction problems using a range of efficient mental and written strategies. (ACMNA030)
21		 As we can see, there is only one roll of Vegies, so it is impossible for Kevin to select two rolls of Vegies.	identify practical activities and everyday events that involve chance and describe outcomes as 'likely' or 'unlikely' and identify some events as 'certain' or 'impossible'. (ACMSP047)

22		The pattern shows the time on the clocks increasing by 1 hour and 30 minutes.  So the missing time on the clock is 8:00.	describe, continue, and create number patterns resulting from performing addition. (ACMNA060)
23	$40	Tom has $95 − $55 = $40 left after buying the basketball.	solve simple subtraction problems using a range of efficient mental and written strategies. (ACMNA030)
24	13	Phillip is 11 years old. Rachel is 3 years younger, so she is 11 – 3 = 8 years old. Brandon is 5 years older than Rachel, so he is 8 + 5 = 13 years old.	solve simple addition and subtraction problems using a range of efficient mental and written strategies. (ACMNA030)
25	Wrote his first book	Each interval on the timeline represents 5 years. So, between 1990 and 1995 Tim wrote his first book.	interpret and compare data displays. (ACMSP070)
26	11	Peter has 14 + 7 = 21 lollies in his two bags. James has the same number of lollies as Peter, so he has a total of 21 lollies. Now, as James has 10 lollies in one bag then he has 21 – 10 = 11 lollies in his other bag.	solve simple addition and subtraction problems using a range of efficient mental and written strategies. (ACMNA030)

27	2	As we can see, when the apples are placed into groups of 4, there are 2 left over. 	recognise and represent division as grouping into equal sets and solve simple problems using these representations. (ACMNA032)
28		If the middle 2 columns are swapped, it is clear that this square is half shaded. 	compare and order several shapes and objects based on area using appropriate uniform informal units. (ACMMG037)
29	27	For every \$3, Angela can buy 9 balloons. As there are three lots of \$3 in \$9, then Angela can buy 3 lots of 9 balloons, which is $3 \times 9 = 27$ balloons.	recognise and represent division as grouping into equal sets and solve simple problems using these representations. (ACMNA032)
30	3	This triangle has 3 axes of symmetry. If Grace cuts in a straight line along any of the axes 1, 2 or 3, she will get 2 equal pieces. 	identify symmetry in the environment. (ACMMG066)
31	13	There are 6 bus stops before the 7th bus stop. As Sam said, "There is the same number of bus stops before and after this stop." So there must be 6 more stops after the 7th bus stop. Hence, the total number of bus stops is $6 + 1 + 6 = 13$ bus stops.	solve simple addition and subtraction problems using a range of efficient mental and written strategies. (ACMNA030)

<table>
<tr>
<td>32</td>
<td>6</td>
<td>Each cow has 4 legs.

As there are 6 lots of 4 in 24, so there are 6 cows on Julie's uncle's farm.</td>
<td>recognise and represent division as grouping into equal sets and solve simple problems using these representations. (ACMNA032)</td>
</tr>
<tr>
<td>33</td>
<td> 
</td>
<td>Kylie swam a total of
100 + 200 + 300 + 400 = 1000 m.

Jessica also swam 1000 m, but she swam the same distance each day over the four days.

Hence, she swam a quarter of 1000 m each day, which is 250m as shown in the graph.</td>
<td>recognise and represent division as grouping into equal sets and solve simple problems using these representations. (ACMNA032)</td>
</tr>
<tr>
<td>34</td>
<td>Square pyramid</td>
<td>A square pyramid has 5 faces.
Four of the faces are triangles and the fifth is a square.

None of the other solids
(the rectangular prism, the sphere or the cone) have 5 faces.</td>
<td>describe the features of three-dimensional objects. (ACMMG043)</td>
</tr>
<tr>
<td>35</td>
<td>5</td>
<td>As shown in the table, the farmer needs to use 5 boxes of each size to pack 300 peaches.
<table>
<tr><th>Number of 10 Peaches boxes</th><th>Number of 20 Peaches boxes</th><th>Number of 30 Peaches boxes</th><th>Total number of Peaches packed</th></tr>
<tr><td>1</td><td>1</td><td>1</td><td>10 + 20 +30 = 60</td></tr>
<tr><td>2</td><td>2</td><td>2</td><td>2 × 60 = 120</td></tr>
<tr><td>3</td><td>3</td><td>3</td><td>3 × 60 = 180</td></tr>
<tr><td>4</td><td>4</td><td>4</td><td>4 × 60 = 240</td></tr>
<tr><td>5</td><td>5</td><td>5</td><td>5 × 60 = 300</td></tr>
</table></td>
<td>represent and solve problems involving multiplication using efficient mental and written strategies. (ACMNA057)</td>
</tr>
</table>