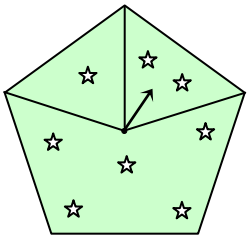
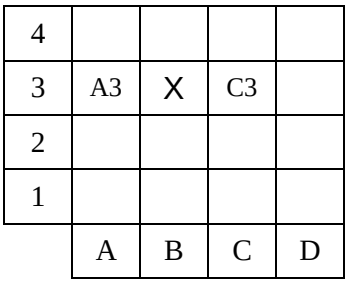
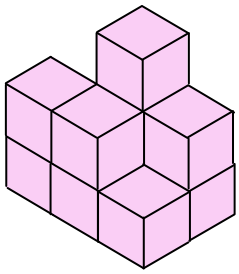
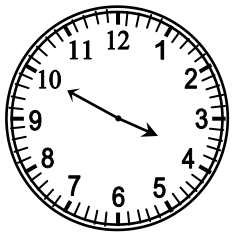
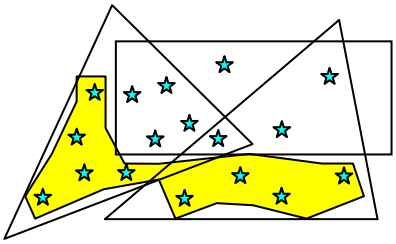
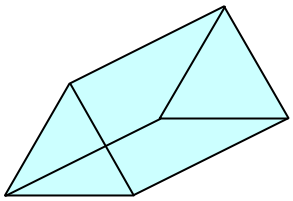
YEAR 3 – PAPER 7

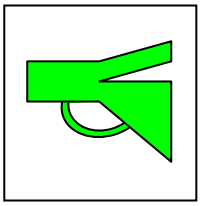
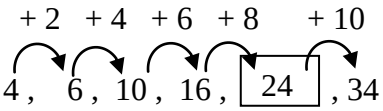
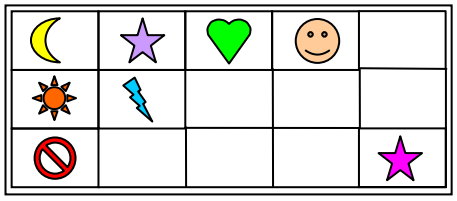
NUMERACY WORKED SOLUTIONS

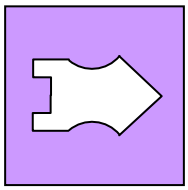
	ANSWER	EXPLANATION	Australian Curriculum Reference A student can
1	20	Peter's column reaches the line drawn at 20, which shows that Peter sold 20 tickets.	collect data, organise into categories and create displays using simple column graphs. (ACMSP069)
2	bottom shelf, second from the left	It can be seen that the sugar jar is on the bottom shelf, second from the left, next to the rice.	identify the relative positions of key features. (ACMMG044)
3	11	Stephanie must have more than 10 doughnuts, but less than 13 doughnuts. As 11 is the only option between 10 and 13, then Stephanie has 11 doughnuts.	recognise and order numbers to at least 1000. (ACMNA027)
4	Rectangular prism and rectangular pyramid	The top object is a rectangular pyramid and the lower object is a rectangular prism.	make models of three-dimensional objects and describe key features. (ACMMG063)
5	800 + 90 + 7	Only 800 + 90 + 7 will give 897 when added.	recognise, model and represent numbers to at least 1000. (ACMNA027)
6		The value of the four coins shown is $1.65. An extra 20 cent coin is needed to make a total of $1.85.	represent money values in multiple ways and count the change required for simple transactions to the nearest five cents. (ACMNA059)

7	13	Malcolm had 18 apples. He gave 3 and ate 2 so he had 18 – 3 – 2 = 13 apples left.	solve simple subtraction problems using a range of efficient mental and written strategies. (ACMNA030)
8		The spinner that has the greatest section for five stars gives the best chance. So Peter should spin the third spinner.	conduct chance experiments, identify and describe possible outcomes and recognise variation in results. (ACMSP067)
9	B3	 A3 and C3 are marked on the grid above. B3 is the square between them.	create and interpret simple grid maps to show position and pathways. (ACMMG065)
10	24	Tim has 8 + 8 + 8 = 24 marbles altogether. Alternatively, Tim has 3 lots of 8 marbles, which is 24 marbles altogether.	recognise and represent multiplication as repeated addition, groups and arrays. (ACMNA031)
11	7	16 + 7 = 23	explore the connection between addition and subtraction. (ACMNA029)
12	Hexagon	The shape that Kevin drew has 6 straight sides, so it is a hexagon.	describe and draw two-dimensional shapes, with and without digital technologies. (ACMMG042)

13	4×7	There are 4 lots of 7 chairs. Hence, the total number of chairs is 4×7.	recognise and represent multiplication as repeated addition. (ACMNA031)
14		The first solid has 9 cubes. The second solid has 8 cubes. The third solid has 9 cubes. The fourth solid has 10 cubes. Hence, the fourth solid has the greatest number of cubes.	compare and order several shapes and objects based on volume using appropriate uniform informal units. (ACMMG037)
15		10 minutes after 3:40 p.m. is 3:50 p.m. Hence, the second clock shows the time when Jim arrived at the train station.	tell time to the minute and investigate the relationship between units of time. (ACMMG062)
16	20 cm	The length of the longest jump is 309 cm and the length of the shortest jump is 289 cm. Hence, the difference between these jumps is 309 – 289 = 20 cm.	solve simple subtraction problems using a range of efficient mental and written strategies. (ACMNA030)
17	9	 The shaded region shows the stars that are in the triangles, but not in the rectangle.	describe and draw two-dimensional shapes. (ACMMG042)
18	21	There are 7 days in 1 week. So in 3 weeks there are 7 + 7 + 7 = 21 days. Alternatively, in 3 weeks there are 3 lots of 7 days, which is 21 days.	investigate the relationship between units of time. (ACMMG062)

19	4	As each sheet has 6 stickers, then 3 sheets will have 18 stickers, but this is not enough. Hence, 4 sheets will be needed as they have 24 stickers, which is more than the number of guests.	represent and solve problems involving multiplication using efficient mental and written strategies. (ACMNA057)
20	9 edges	 This triangular prism has 3 edges in the front, 3 edges in the back, and 3 edges connecting the front to the back. Hence, this triangular prism has 3 + 3 + 3 = 9 edges.	make models of three-dimensional objects and describe key features. (ACMMG063)
21	6 m	The length of a 4 door car is about 4m. Also, there is a small space in front of the car and another small space behind it, so the real length of this garage is 6 m.	measure, order and compare objects using familiar metric units of length. (ACMMG061)
22	3 blonde-haired dancers	There are only two blonde dancers in the team, so it is impossible to have a group of three blonde dancers. Every other option is possible.	describe outcomes as 'likely' or 'unlikely' and identify some events as 'certain' or 'impossible'. (ACMSP047)

23	8	Each apple can be cut to make 2 halves. So 8 apples were cut to make 16 halves.	recognise and interpret common uses of halves of shapes and collections. (ACMNA033)
24		An anticlockwise rotation is a turn like this  Hence, the first picture gives the correct answer.	identify and describe half and quarter turns. (ACMMG046)
25	16 ÷ 4	Melissa and her 3 friends are 4 people, and they are to share the 16 muffins. So, each of them will receive 16 ÷ 4.	recognise and represent division as grouping into equal sets and solve simple problems. (ACMNA032)
26	24		describe, continue, and create number patterns resulting from performing addition. (ACMNA060)
27	15	From the diagram, we can see that 15 pages are needed to cover the entire board. 	recognise and represent multiplication as repeated addition, groups and arrays. (ACMNA031)

28	Giraffe Show	The giraffe show started at 1:10 p.m. and finished at 2:10 p.m. Hence, Mr Brown's class was watching the giraffe show at 2:00 p.m.	interpret and compare data displays. (ACMSP070)
29		By drawing a horizontal line through the middle of the cardboard in each option, it can be seen that only the first option matches the cut out shape.	investigate the effect of one-step slides and flips. (ACMMG045)
30		The pattern has 5 shapes. The first and the second parts are completed, but the third part has only 2 shapes, as shown. First part Second part Third part  To complete the third part we need these three shapes  .	investigate and describe number patterns and patterns with objects. (ACMNA018)
31	Juice	The number of children who chose - Water : 10 + 8 = 18 - Juice : 11 + 9 = 20 - Milk : 12 + 7 = 19 - Soft drink: 13 + 6 = 19 Hence, Juice was the most popular.	create displays of data using lists and tables and interpret them. (ACMSP050)
32	5	The total number of lollies in the four jars is 3 + 4 + 6 + 7 = 20. Each jar will have the same number of lollies if each contains 20 ÷ 4 = 5 lollies.	recognise and represent division as grouping into equal sets and solve simple problems. (ACMNA032)

33	6	As Darren is to take four marbles more than Tom, we can start by writing D on four of the marbles. After that, we write D on one marble and then T on another, until the remaining marbles are all labelled, as shown.  From the diagram, we can see that Tom "T" takes 6 marbles.	recognise and represent division as grouping into equal sets and solve simple problems. (ACMNA032)
34	$6.30	The money that Jenny and Mary have together is $6.50 + $7.20 = $13.70. The amount of money still needed to buy the doll is $20 – $13.70 = $6.30.	solve simple addition and subtraction problems using a range of efficient mental and written strategies. (ACMNA030)
35	16	In 8 weeks, Miss Green gives her students 8 lots of 3 awards, which is 24 awards. Hence, she will have 40 – 24 = 16 awards left.	represent and solve problems involving multiplication using efficient mental and written strategies. (ACMNA057)