7/1   **Put a circle round the correct answer:**

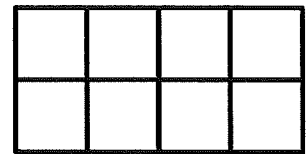If $4x + 1 = 2x + 7$

The value of x is

a) 4   b)   3   c)   2   d)   1

7/2   How many minutes are there in half a day?

7/3   How many squares altogether in this shape?
The answer is not 9

7/4   What must 10 be multiplied by to get 5?

7/5   I needed to order 2000 pens for this year's Mathex Competition. I paid $3,500, how much did each Mathex pen cost?
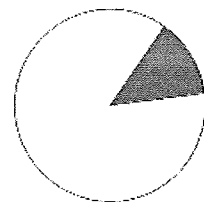
7/6   These are the first 5 triangle numbers, 1, 3, 6, 10, 15, ...
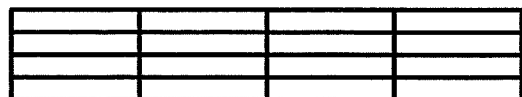
Write the next two triangle numbers

7/7   Today is the 24th August 2017.
How many days to Labour Day, Monday 23rd October 2017?

7/8   I open the Mathex book and see two page numbers. If I multiply these numbers I get 812. What is the value of the smaller page number?

7/9   At her birthday party Donna eats a piece of this lemon meringue pie with 20 degrees at the centre.
Everyone else at the party had pieces of pie with 10° at the centre. How many people were at the party if all the pie was eaten?
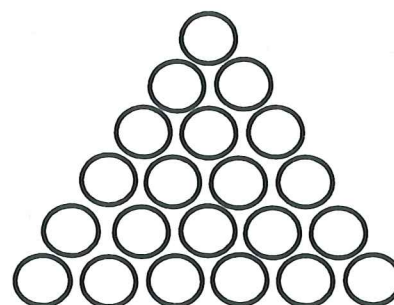
7/10   There are 25 pieces of metal to make this frame with 4 sections.
How many pieces of metal are needed to make a frame with 6 sections?

7/11   If a = 1, b = 2, c = 4, d = 8, and so on, which letter of the alphabet is the first to be greater than 250?

7/12   A paddock has 74 animals, a mixture of sheep and goats. The number of sheep is five more than twice the number of goats. How many sheep are there?

7/13   Ricky is travelling from Whangarei to Pukekohe, a distance of 200 km. She travels at a speed of 80 km/h. How long will it take her to arrive at her destination in hours and minutes?

7/14   The numbers 1 – 6 are placed in the bottom row, in order, and each circle is the sum of the two below it, what number will appear in the top circle?

7/15   Gail and Louise arrive late for a movie and miss 10% of it. The movie is 2 hours long. How many minutes of the movie did they watch?

7/16   Your Mathex pen is estimated to write for 1000 metres. The four-person Mathex team decides to see if this is true. Each draws the same size rectangle 4cm x 8cm until the ink runs out. How many rectangles did they draw altogether? Write your answer to the nearest whole number.

7/17   Ethan has 10 small cubes with side length of 1cm, he is making different sized cuboids using all the small cubes in each cuboid. He decides to make a cuboid using all 10 small cubes with the largest surface area. What size is his cuboid?

7/18   If 3 pandas can eat 10 bunches of bamboo shoots in 4 days how many bunches would be needed for 12 pandas over 2 days?

7/18   ~~If 3 pandas can eat 10 bunches of bamboo shoots in 4 days how many bunches would be needed for 12 pandas over 2 days?~~

7/19   Jono adds up three sides of a rectangle and gets 17, while Phil adds up 3 sides of the rectangle and gets 25, what is the perimeter of the rectangle?

7/20   One tenth of the cars in the ASB stadium are red. If 2 more red cars arrive, now one ninth of the cars are red. What is the least number of cars there are in the carpark altogether?

MATHEX QUIZ ANSWERS Year 7 – 2017
No units required

Number	Answers	Comment/Not required
1	b) Or 3	either
2	720	Minutes
3	11	Squares
4	$\frac{1}{2}$ or 0.5	Either
5	1.75	$ or dollars
6	21, 28	In this order
7	60	Days
8	28	**Not** 29
9	35	People
10	37	Pieces of metal
11	i	
12	51	Sheep
13	2 hours and 30 minutes	Only this
14	112	
15	108	Minutes
16	16,667	rectangles
17	1 x 1 x 10	Any order, cm
18	20	bunches
19	28	cm
20	162	cars