WEEK 5 LEVEL 4   MATHS

Try to complete all activities over the week. You may do them in any order you like.

Please continue practising your times tables as well.

L.I. To correctly use the   ORDER OF OPERATION

When there is more than one *operation* (+, -, x, /) in a calculation, you must follow the correct **order of operations**. Otherwise you will get a different (incorrect) answer

e.g. $3 + 4 \times 5 = 3 + 20 = 23$ (NOT $3 + 4 \times 5 = 7 \times 5 = 35$)

Rules for order of operations

Brackets	( )
Exponents	squares, cubes, etc.
Division	÷ } do in order from
Multiplication	× } left to right
Addition	+ } do in order from
Subtraction	− } left to right

The first letters spell BEDMAS -- that can help you remember the right order.

Example: $40 - 2^2 \times 8 + (3 + 7) \div 2$
$= 40 - 2^2 \times 8 + 10 \div 2$ brackets first: $3 + 7 = 10$
$= 40 - 4 \times 8 + 10 \div 2$ exponents next: $2^2 = 4$
$= 40 - 32 + 5$ multiplying (4×8) then dividing $(10 \div 2)$ left to right
$= 8 + 5$ subtracting $(40 - 32)$ then adding $(8 + 5)$ left to right

Use Order of Operation rules to work out the answers for these questions involving brackets.

Remember $4 (6 + 4)$ means $4 \times (6 + 4)$

1. $3(5 \times 4 + 5) =$

2. $5 (6 \times 6 - 19)=$

3. $6 (29 - 4 \times 6) =$

4. $5 (36/9 + 9)=$

5. $6 (55/5 - 7) =$

6. $7 (8 \times 4 + 9)=$

7. $40 - 3(18/3 + 2)=$

8. $15 + 3(2 \times 8 + 4)=$

9. $11 + 2(19 - 2 \times 7)=$

10. $50 - 4(5 + 20/4)=$

11. $17 + 2(27 - 3 \times 8)=$

12. $40 - 3(18/3 + 2)=$

Complete each statement by replacing the ___ with the correct signs to make each equation true.

2 __3 ___5 =17   5____3____6 =21   10 ___4 __2 =8

12 __3 ___7 =28   9 ___10 ___2 =14   23___4___5=3

WAYS TO 43

In this activity your aim is to make a total of 43 (the number at the bottom of the grid).

You may use any of the four operations (+ , - , x , and /), and you can move vertically, horizontally or diagonally. You must include at least one number from each row, and you cannot jump numbers.

8	7	4	1	9
3	2	6	5	2
6	9	1	3	0
9	8	2	1	4

43

Start with the 8 at the top for question 1.

1. Make as many equations as you can that start with the 8 in the first row and that equal 43. The last operation in each equation must use the 8, 2 or 1 in the fourth row.

2. Make as many equations as you can starting from the 9 in the first row. Your equations still have to equal 43 and finish with 8, 2, or 1.

The activities that follow are from the" Figure It Out" books and requires you to read and follow instructions, use your skills of addition and subtract and maybe multiplication and division to solve problems. If multiplication and division is something you need help with you can just use repeated addition and repeated subtraction.

If you are unable to write answers on the page then write them at the bottom of the page or on a new page. PLEASE REMEMBER TO SHOW YOUR WORKING OUT.

BOXING   BALLS

Quinten has permission to hunt for lost golf balls at the Shrubbery Golf Course. He washes them and puts them in boxes to sell.

He finds that 12 is a good number of golf balls to put in a box because he can use three different – sized rectangular boxes: 1x12,   2x6,   3x4.

1) Other numbers of golf balls have fewer rectangular numbers. For example, 8 gives: 1x8 and 2x4 .

How many rectangular arrangements are possible with:
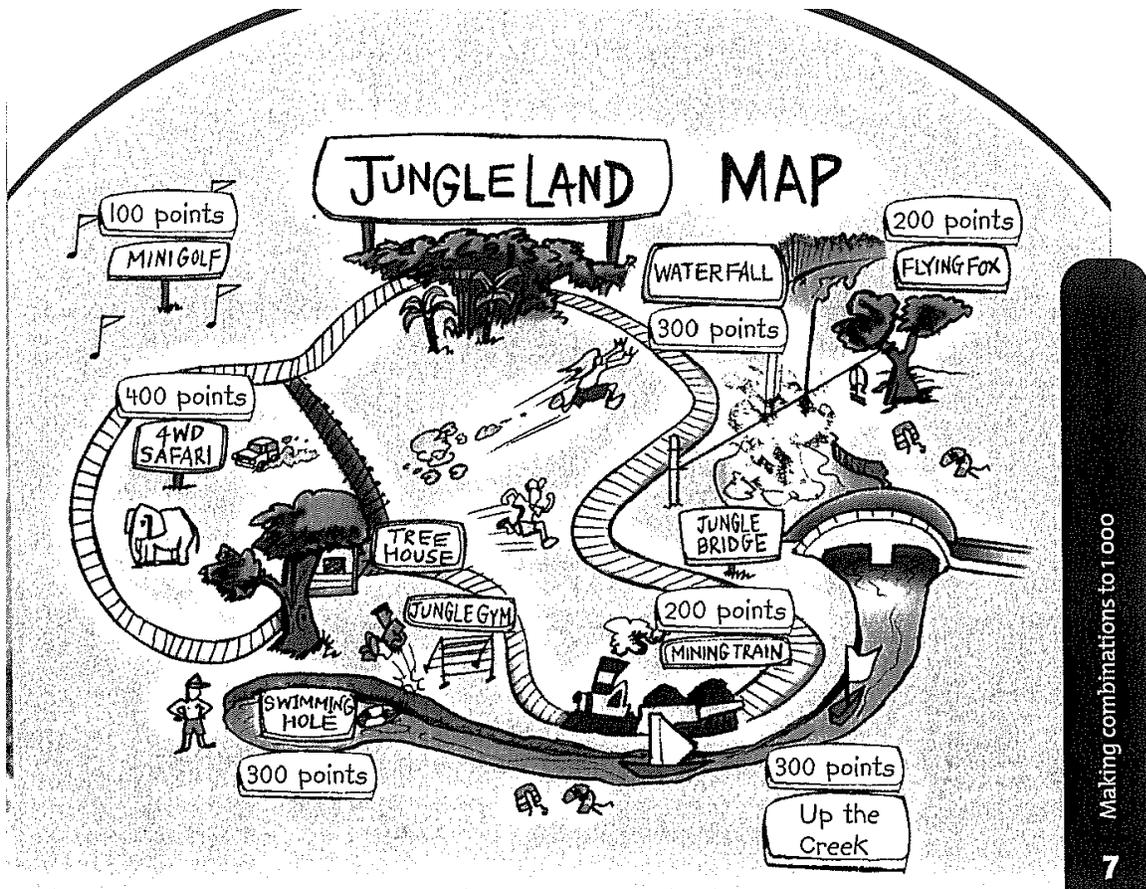
A) 18 golf balls?

B) 20 golf balls?

C) 24 golf balls?

D) 17 golf balls?

2 a) Find numbers that have only one rectangular arrangement.

   B) Explain why these numbers have only one arrangement.

JUNGLE   LAND

Stephanie, Jamie, and Tristan go to Jungle Land Fun Park. They each buy a 1000- point activity ticket.

1) Stephanie goes on the 4WD Safari. How many points are left on her ticket after the ride?

2) Jamie goes down the waterfall twice. How many points does he have left?

3)Tristan goes on a train ride and plays a round of minigolf.

A) How many points does this use?

B) How many points does he have left?

4) After these trips, all three children go on the Up the Creek ride.

A) How many points does each person have left on their ticket after going on this ride?

B) Which activity could each one do to use up all the points they have left?

5) If someone gave you a 1000-point ticket, what activities would you use it for?

CHALLENGE   TIME

1)   A car uses 10 litres of fuel to go 100 kilometres.

  How much will it need for 450 kilometres?

2) Hamish and his brother eat 2 pieces of toast each for breakfast, and his sister eats 1. If Hamish has 8 pieces so far this week, how many have the three of them eaten altogether?

3) Piri is making a jug of hot chocolate drink for his team.

The instructions on the back of the packet say to mix 25 grams of powder with 175 millilitres of hot water.

A) How many grams of powder would he need for 525 millilitres of water?

B) How many for 1.050 litres?

C) Use a double number line to work out how many litres he could make with:

   - 200grams of chocolate powder?

   - 325 grams of chocolate powder?

4) Josh, Ani and Philip have enough food to last 9 people for 5 days.

How long should the food last the 3 friends?

5) Mele, Ken and Hineata share a bag of lollies. Hineata gets half, and Ken gets a third. If Mele gets the remaining 4 lollies, how many were there altogether in the bag?

6) If 1 skateboard has 2 trucks and 4 wheels, how many skateboards could you make if you had 17 trucks and 31 wheels?

7) A drink machine gives three 20 cent coins and one 10 cent coin as change when you put in a $2 coin. Jack is buying drinks for himself and his friends. How much money did he put in, in $2 coins, if he got twenty-one 20 cent coins in his change?

8) At Top Chook Takeaways, every combo box has 2 pieces of regular chicken for every 1 piece of spicy baked chicken. How many pieces of each type of chicken would you get in a 27-piece box?

9) 150 millilitres of drink concentrate makes 2.5 litres of drink.

Use a double number line to solve each question below.

A) How much concentrate would you need to make 15 litres of drink?

B) How much drink would 600 millilitres of concentrate make?

C) How much drink would 60 millilitres of concentrate make?

D) How much concentrate would you need to make 4 litres of drink?