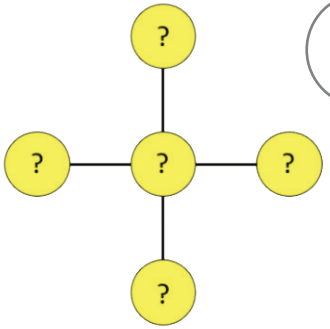
Y3 Learning at home activity sheet #5

Problem 1:

Put the numbers 2, 4, 5, 8, and 10 in the circles.
Use each number once.

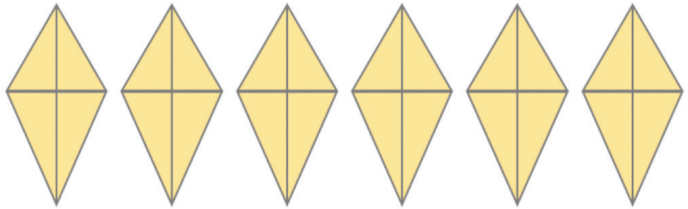
Can you get the numbers going down to add to the same total as the numbers going across?

Do the same with the numbers 1, 3, 6, 7, and 9.



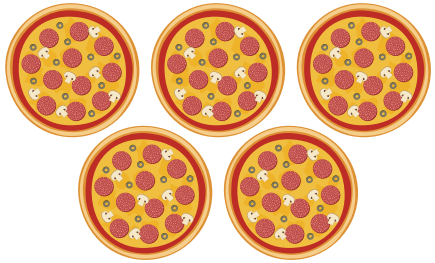
Problem 2:

How many different triangles can you find in this figure?
Trace around the triangles with a pencil or felt pen. There are many copies of the figure for you to use.



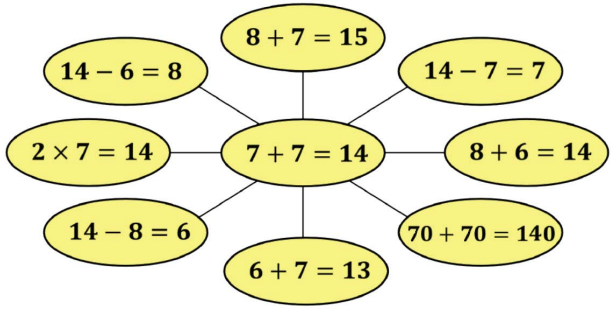
Problem 3:

Cut up the five pizzas so that each child gets the same amount.

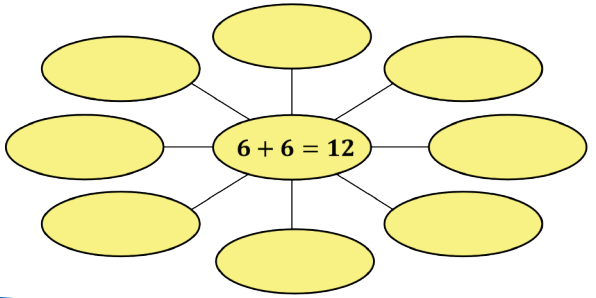


Spider web:

You can start with one basic fact and know many other facts from it.
Here is a spider web of facts using 7 + 7 = 14.

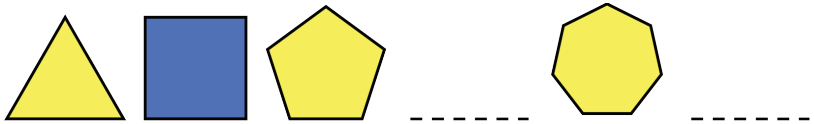


Finish this spider web for 6 + 6 = 12.



Pattern finding:

Draw the two shapes that are missing in this pattern.



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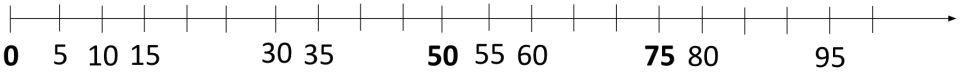
Missing half:

Draw the missing half of the spider.

Placing numbers:

Write the missing numbers on these number lines.



Which is more likely?

Get heads when you toss a coin or win a running race against Mum or Dad?

Looking for:

Here are pictures of an interesting bottle taken from the top, front, and side.

Top

Front

Side

Find an interesting bottle in your house. Draw it from the top, front, and side.

Top Front Side

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Learning at home: Notes for whānau

When your child finishes each activity, ask them to add a mouth to the face to show how they felt about that activity.

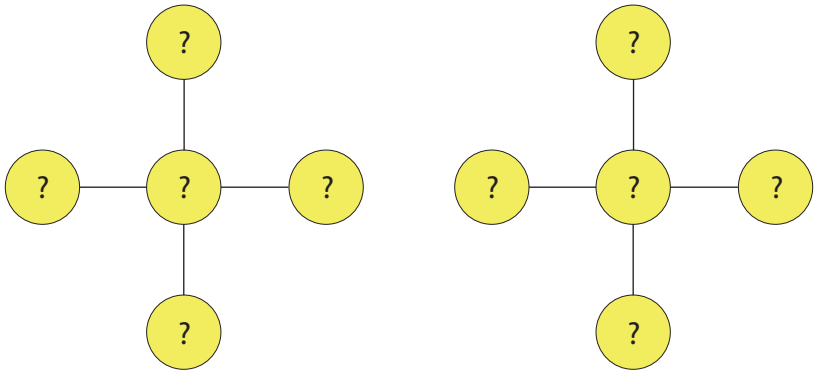
Problem 1:

Check that your child understands the problem. They might try several possible arrangements before finding the one that works. Some key questions to ask are:

Which number should go in the middle circle? Why? (5 is the middle number and is like a centre of balance).

If you put 2 in one circle, what number should you put in the circle opposite it so the horizontal and vertical numbers balance? (2 is the lowest number and 10 is the highest so 10 will balance best).

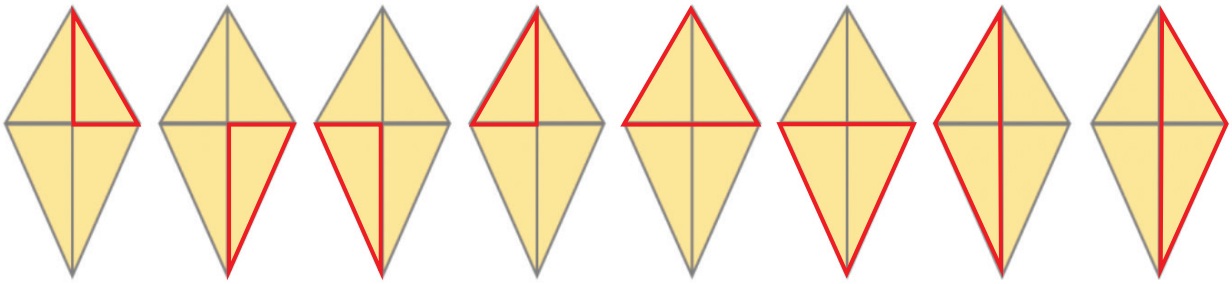
The answers to the problem and arranging 1, 3, 6, 7, 9 are:



Note that there are other ways to arrange the numbers that also work. Some answers are turns of these arrangements.

Problem 2:

The purpose of the problem is to encourage your child to recognise that there are different types (classes) of triangles that can appear different when turned or flipped. There are four small triangles, and four larger triangles, each made up of two small triangles. The possible answers are:



Problem 3:

Use paper circles as make-believe pizzas and allow your child to experiment with ways to share the three pizzas among four children. Remind them that the sharing is equal. Each child must get the same amount of pizza. Your child should realise that they can give one whole pizza to each child. That leaves one pizza over that can be cut into quarters. Talk about how to name the amount of pizza each child gets. The amount could be representedas 1¼ pizzas or 5/4 pizza. These numbers are said as “One and one quarter” and “Five quarters.”

Spider web:

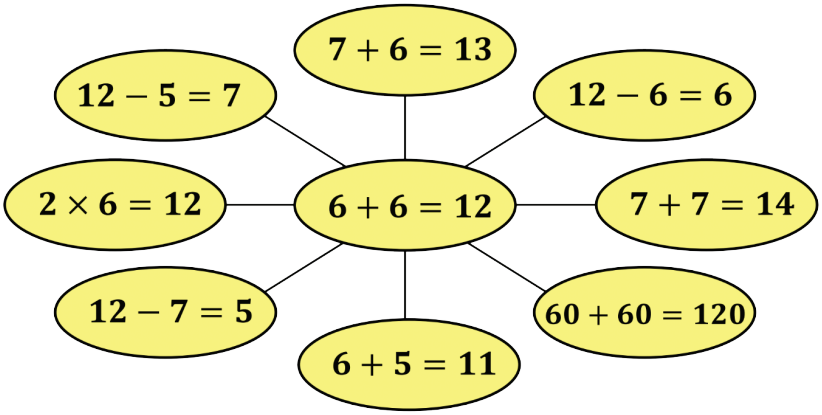
Discuss how the other facts are worked out for the 7 + 7 = 14 web. Ask questions like:

If we know 7 + 7 = 14, how do we work out 7 + 6 = ? or 8 + 7 = ?

If we know 7 + 7 = 14, how do we work out

14 - 7 =? or 14 - 6 = ?

A completed web for 6 + 6 = 12 might look like this:



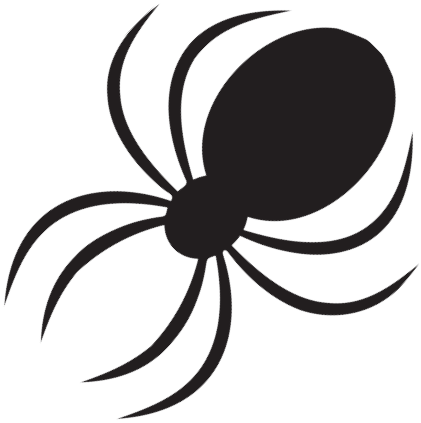
Looking for...

Before your child starts to draw the top, front, and side views tell them to crouch down so the bottle is at eye level. Draw their attention to the shape of the bottle. Is it a cylinder? Does it narrow at the top?

You might take photos with your mobile phone to show your child once they have drawn. Ask them how the drawings might be improved. A common issue with children’s drawing is wanting to show what is unseen.

Missing half:

The completed drawing of the spider should look like this:

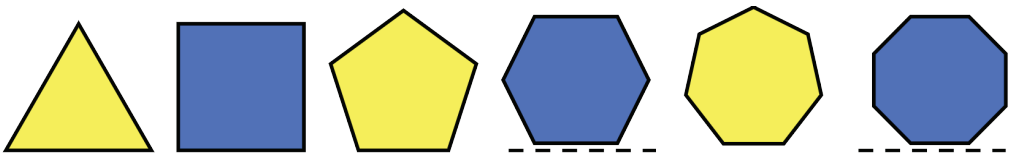


Note that the mirror line is on the diagonal which makes drawing the image half difficult. One strategy is to turn the paper, so the mirror line runs vertically or horizontally.

Look to see that your child balances the picture by ensuring that matching sides and angles of the image are the same size, and distance from the mirror line, as the original half.

Pattern finding:

Does your child notice that the number of sides in each shape (polygon) is increasing by one each step of the pattern? The missing spaces should contain shapes with six and eight sides (hexagon and octagon). The sides are all equal as well and there is an alternating yellow then blue colour pattern.



Which is more likely...?

Discuss the likelihood of the two events, getting a head and winning the race. In most cases the adult will beat a child in the race unless they allow the child to win. In most families, the chances of the child winning are very small. Your situation may differ, and your child should be able to explain this. Since there are two sides on a coin, heads and tails, there is a one-half chance of getting heads. There is also a one-half chance of getting tails. The odds are 50:50.

Discuss “Which event is most likely to happen? Why?”