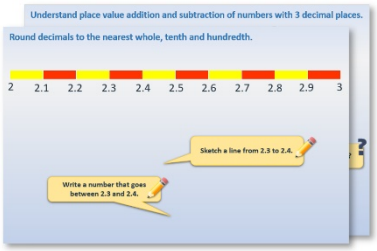
Week 14, Day 4
Number puzzles (2)

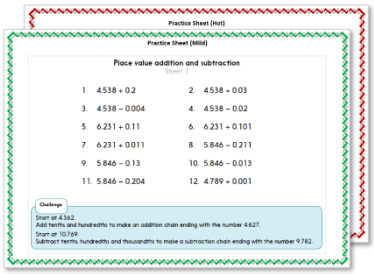
Each day covers one maths topic. It should take you about 1 hour or just a little more.

1. Start by reading through the **Learning Reminders**.



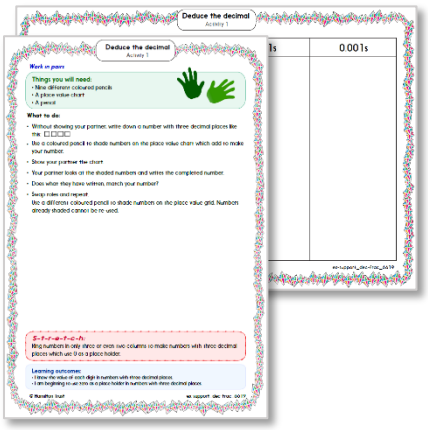
---

2. Tackle the questions on the **Practice Sheet**.
There might be a choice of either Mild (easier) or Hot (harder)!
Check the answers.



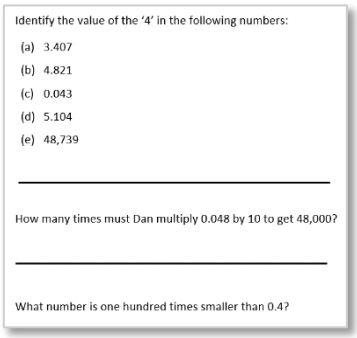
---

3. Finding it tricky? That's OK… have a go with a grown-up at **A Bit Stuck?**



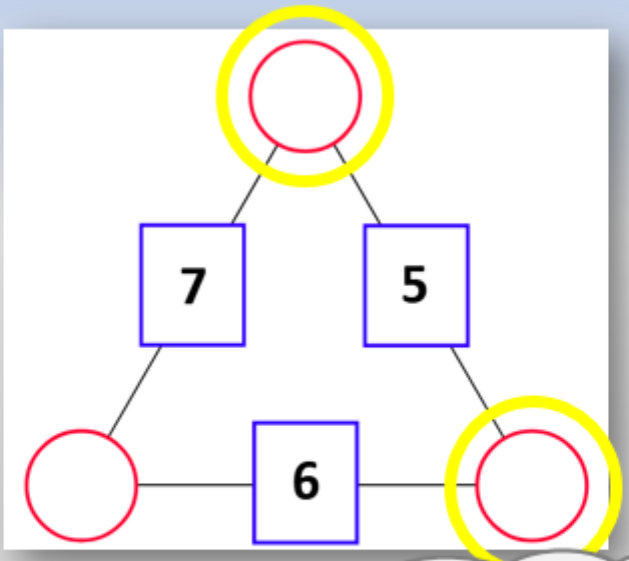
---

4. Have I mastered the topic? A few questions to **Check your understanding**.
Fold the page to hide the answers!



Learning Reminders

Use number facts to solve 'arithmagons'.

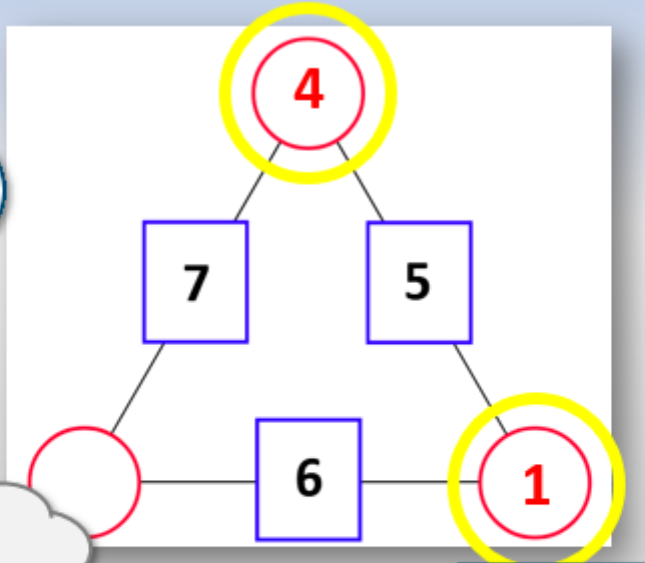


The mystery numbers in 2 circles add up to the number in the square between them.

So what could the numbers in highlighted circles be? The two numbers must add up to 5.

Use number facts to solve 'arithmagons'.

Let's try 4 and 1.

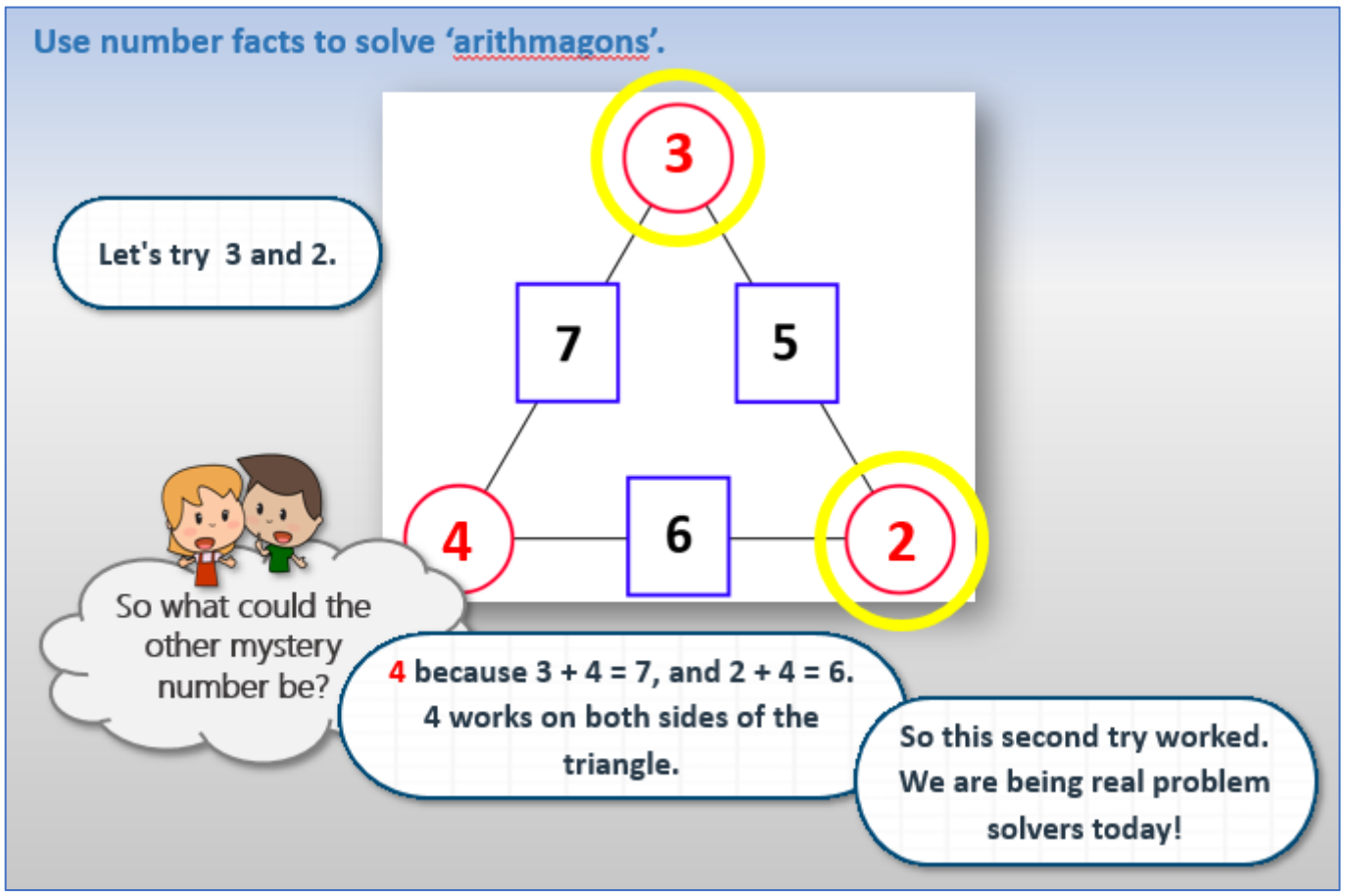


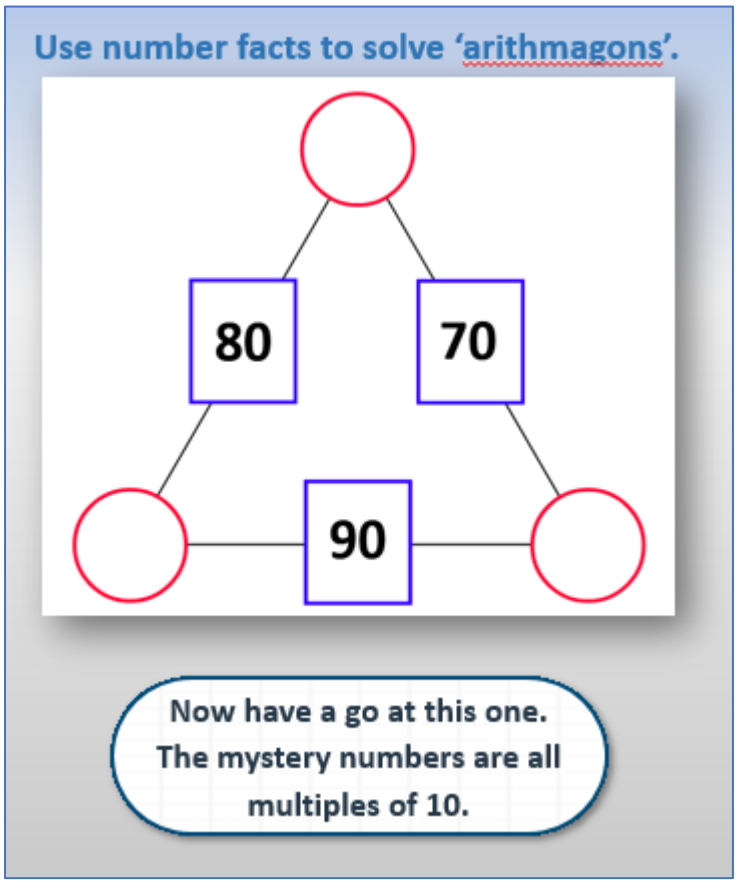
So what could the other mystery number be?

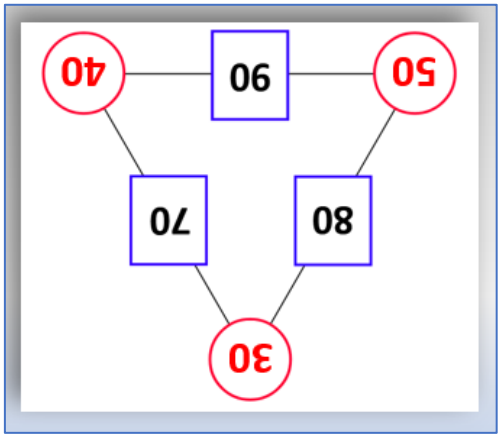
Ah, there is a problem! We need 5 to add to 1 make 6, but we need 3 to add to 4 to make 7!

So we need to change our first two numbers. It doesn't matter that our first guess was 'wrong', this is all part of the problem-solving process that mathematicians go through!

Learning Reminders

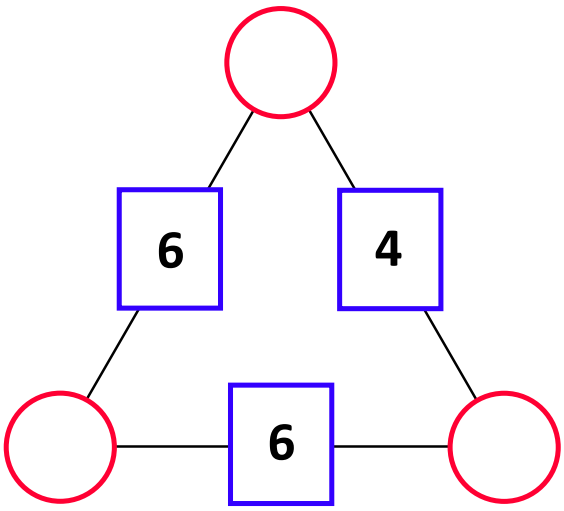


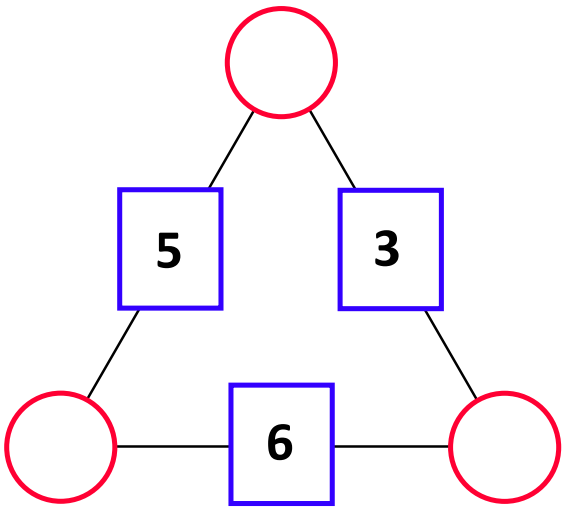


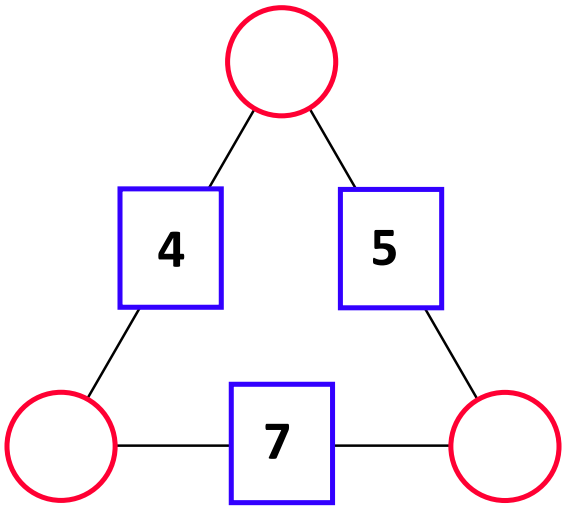


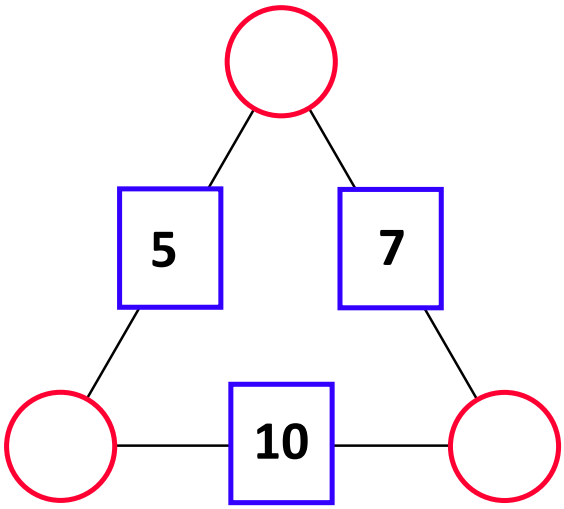
Practice Sheet Mild

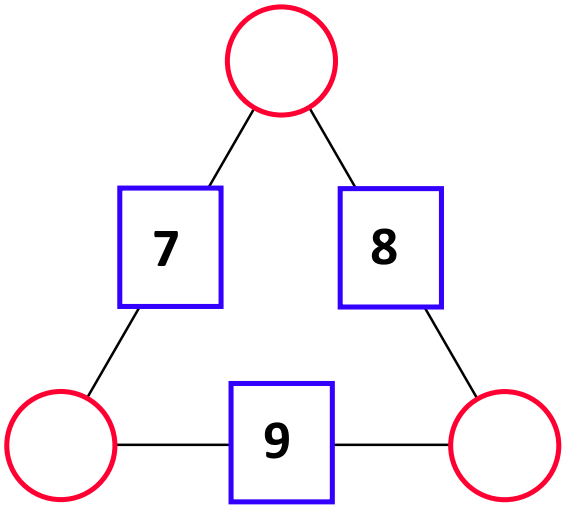
Solve these arithmagons

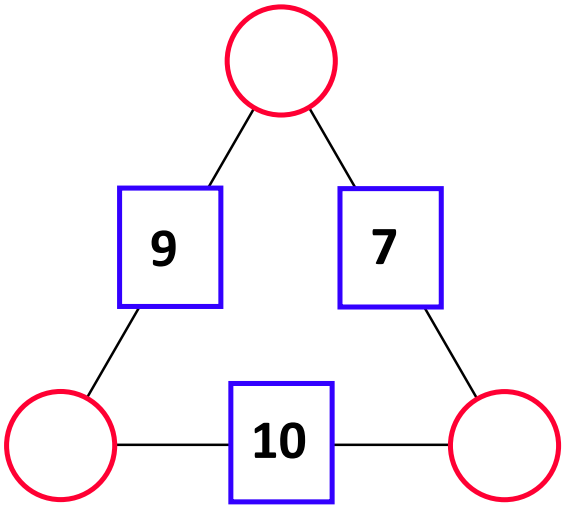






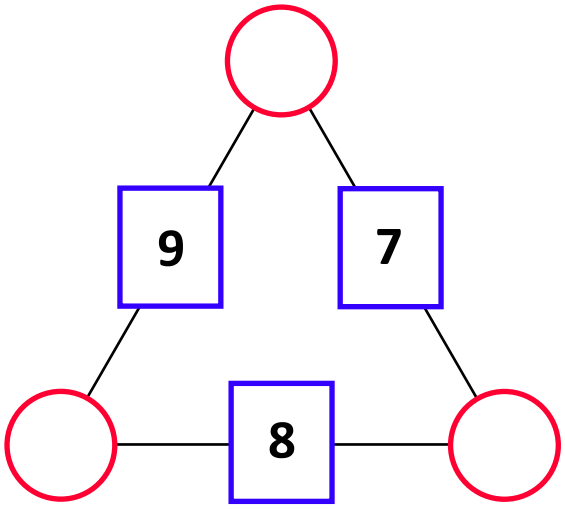


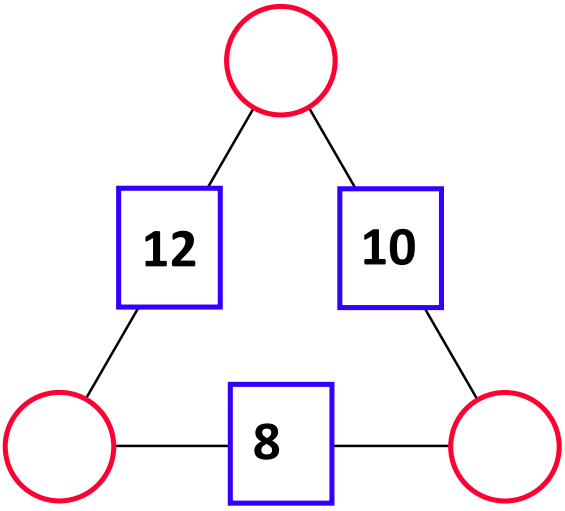


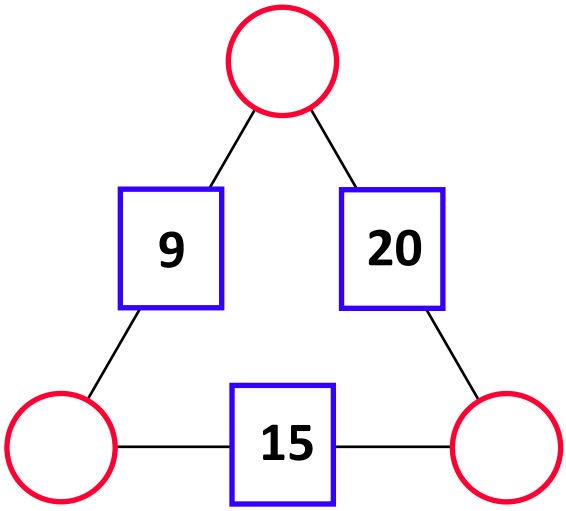


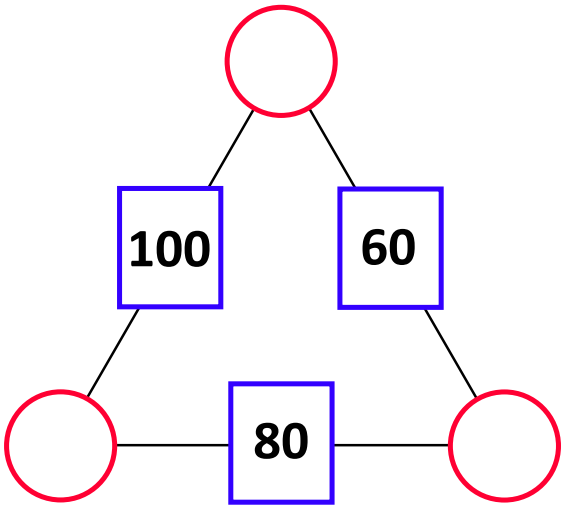
Practice Sheet Hot

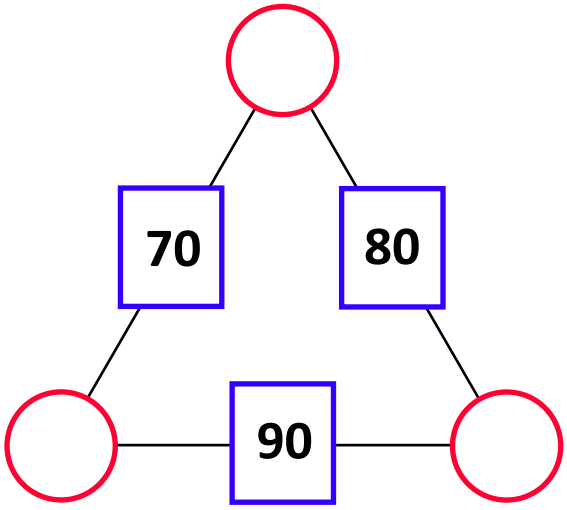
Solve these arithmagons

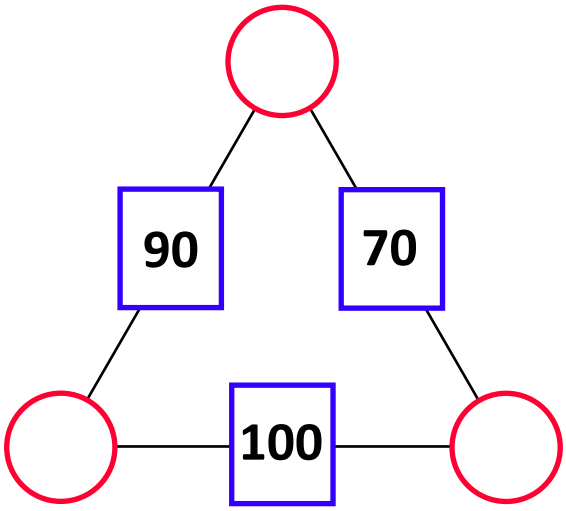






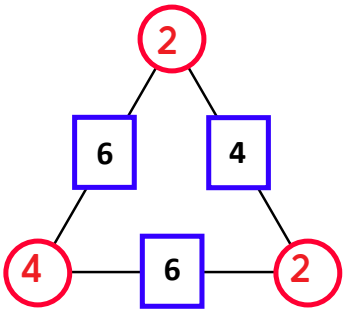


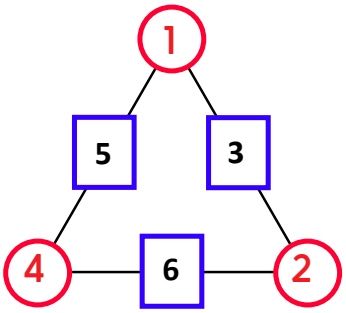


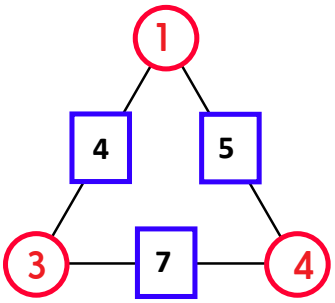


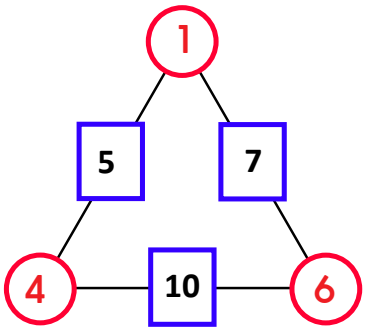
Practice Sheet Answers

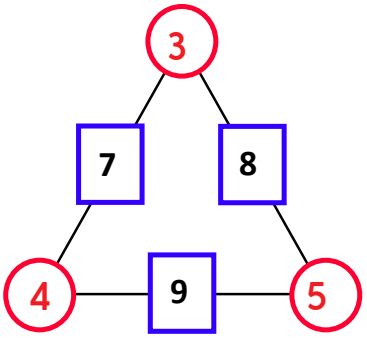
Practice Sheet (Mild)

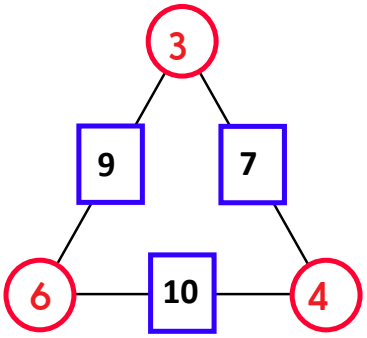




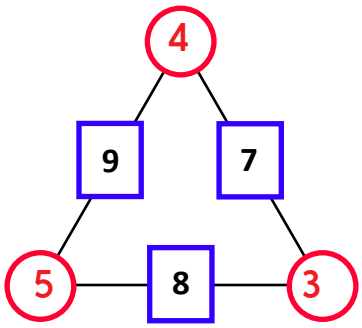


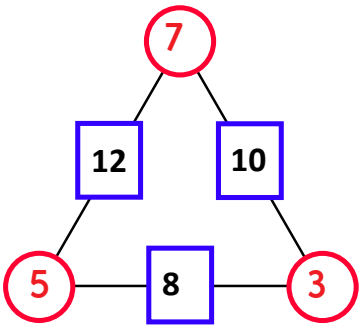


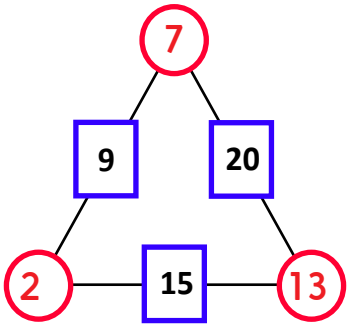


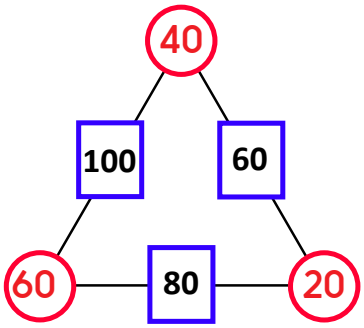


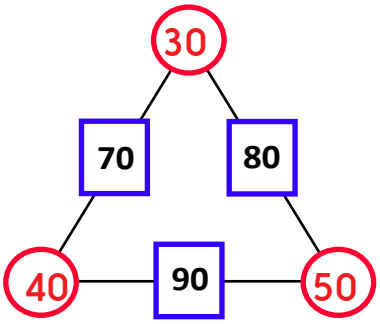
Practice Sheet (Hot)

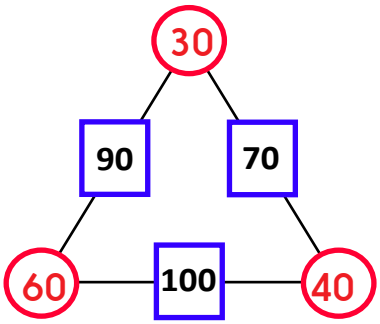






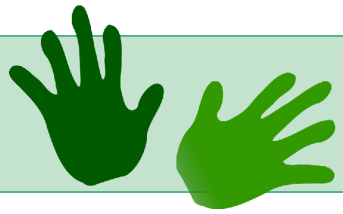






A Bit Stuck?
Testing triangle

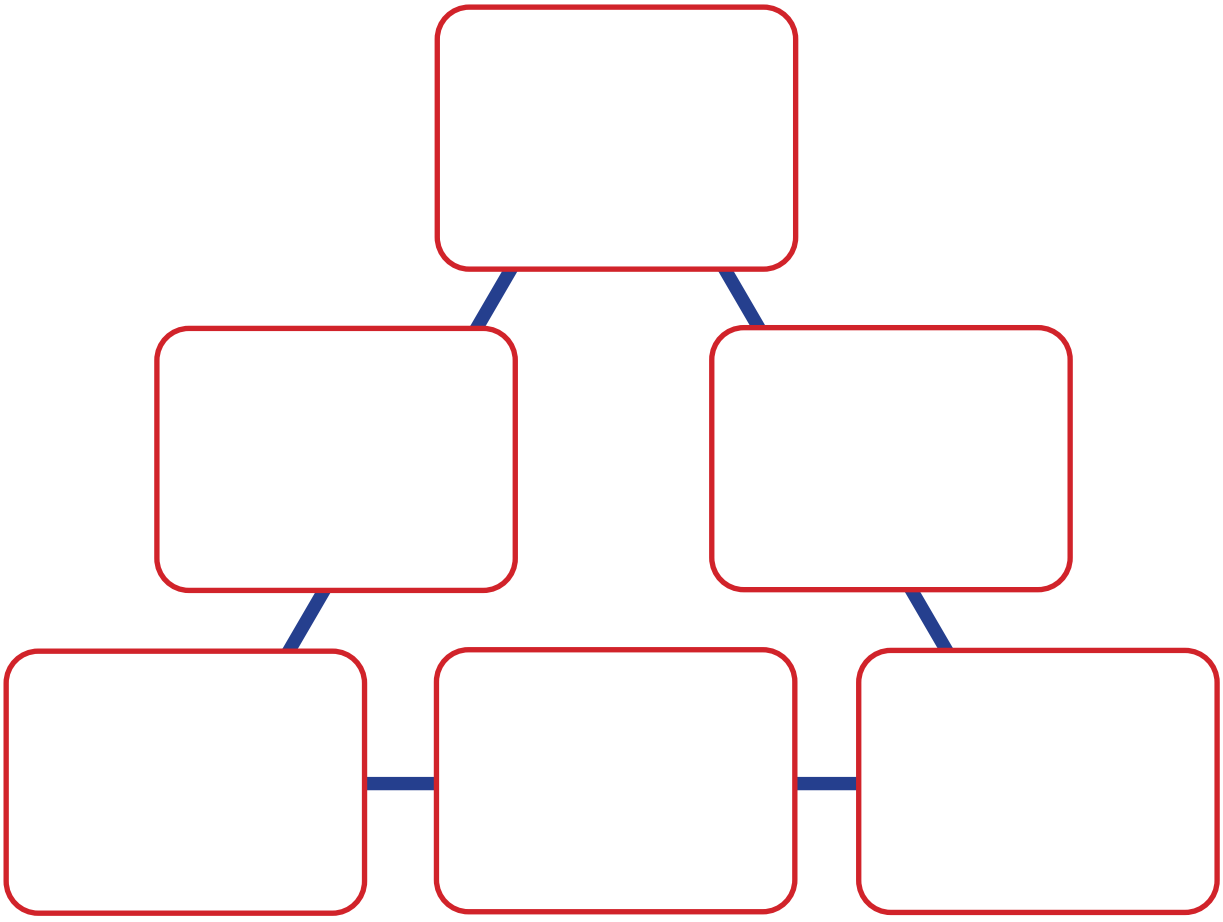
Things you will need:
- 1-6 number cards



What to do:

Your challenge is to arrange the six number cards in a triangle so that the total of each side is 10.

It will need some trial and improving!



HINT:
Think about where to put 6.
It needs to ONLY affect one row.
Then it needs small numbers either side.

A Bit Stuck?
Testing triangle

1	2	3
4	5	6

Check your understanding:

Questions

Write the missing numbers:

6 + 8 + □ = 20 7 + □ + 4 = 18 □ + 45 + 25 = 100

Write three possible pairs of missing numbers:

100		
60	?	?

Write three possible pairs of missing numbers:

80		
30	?	?

Fold here to hide answers:

Check your understanding:

Answers

Write the missing numbers.

6 + 8 + 6 = 20 7 + 7 + 4 = 18 30 + 45 + 25 = 100

Write three possible pairs of missing numbers:

100		
60	?	?

Any pair of numbers with a total of 40, e.g. 40 and 0, 30 and 10, 27 and 13…

Write three possible pairs of missing numbers:

80		
30	?	?

Any pair of numbers with a total of 50, e.g. 30 and 20, 25 and 25, 42 and 8...
