Year 4 reasoning examples

A number is rounded to 370
What could all the possibilities be?
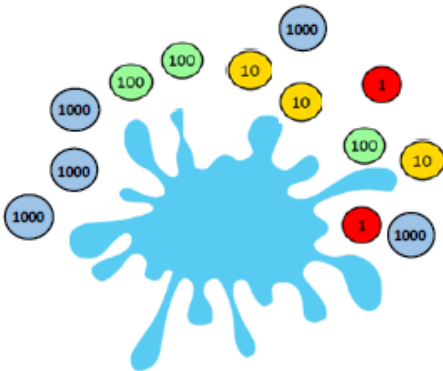
370

Always, sometimes, never.

If a number is a multiple of 6 it will always be a multiple of 3
What do you think?

Convince me.

Some place value counters are hidden.
The total is six thousand, four hundred and thirty two.

Which place value counters could be hidden?

Think of at least three solutions.

Henry says:

When I add 1,000 to 4,325 I only have to change 1 digit.

Is he correct?
Which digit does he need to change?

Hayley is counting in 25s and 1,000s.
She says:

- Multiples of 1,000 are also multiples of 25
- Multiples of 25 are therefore multiples of 1,000

Are these statements always, sometimes or never true?

Jeff is counting down in 25s from 790.
Will he say 725?

Explain your answer.

- Here is an angle on a protractor.
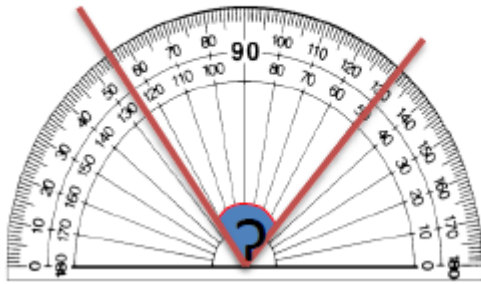
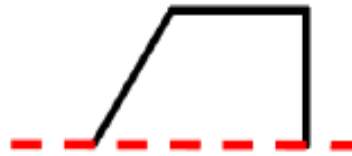Sam says 'The angle is obtuse because it is more than 90°'

Gita says 'The angle is acute because it is less than 90°'
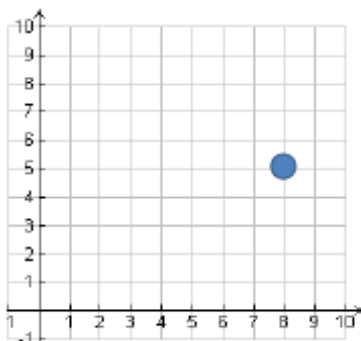
Who is correct?
Explain your thinking.

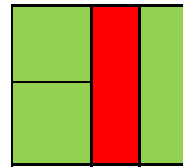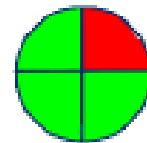- Point A is marked on the grid.

Henry says that point A is at (5,8)
Aisha says that point A is at (8,5)

Who is correct? Can you explain what mistake one of the children has made?

- Caroline thinks the shape will have 5 sides altogether when it is reflected in the mirror line.

Do you agree?
Prove it.

- Look at the three pictures. What's the same and what's different?

- Three children are meeting in the park.

Sam says 'We are meeting at 14:10.

Laura says 'We are meeting at ten to two.

Tom says 'We are meeting at 2:10pm'

- Will all the children meet at the same time? Convince me.