# WORKING WITH NUMBERS RELATIONALLY

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# NUMBER, OPERATIONS & RELATIONSHIPS: GENERAL CONTENT FOCUS

Development of number sense that includes:

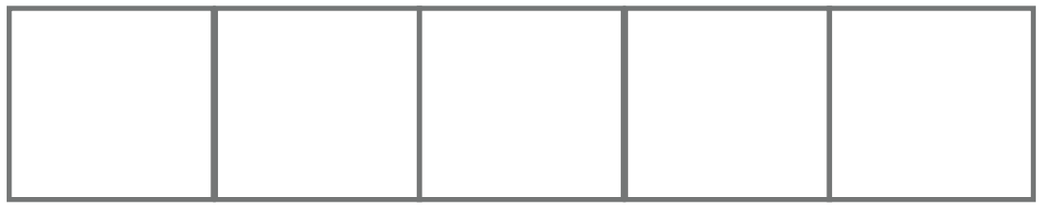
- the meaning of different kinds of numbers
- the relationship between different kinds of numbers
- the relative size of different numbers
- representation of numbers in various ways
- the effect of operating with numbers

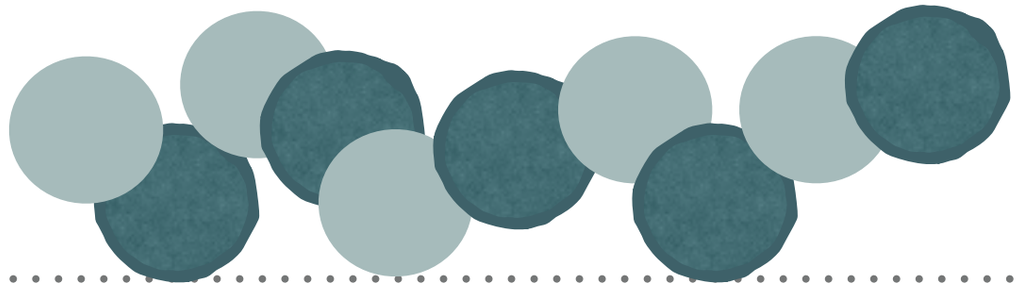
# IN NUMBER GRADE R, FOCUS IS ON 1-10 NUMBER RANGE

- Count objects
- Count forwards and backwards
- Number symbols and number names
- Describe, compare and order numbers
- Problem solving
- Addition and subtraction - in contextual situations and in numerical contexts
- Grouping and sharing leading to division
- Money
- Mental mathematics

‘She knows 1-5’

What do we mean when we say this?





Step 1: Player 1 can place 1 or 2 of their counters on the track

Step 2: Player 1 says ‘There are __ counters on the track’

Step 3: Player 2 can place 1 more or 2 more of their counters on the track.

Step 4: Player 2 says a sentence that matches their action, e.g. ‘I added two counters to your one counter. Now there are three counters altogether’

Step 5: Player 1 has to show this number sentence on their fingers, e.g show one finger, open two more fingers to make three fingers and say: ‘First there was one (show one finger), then you added two more (open two more fingers). Now there are three.’

Player 1 can now add 1 or 2 more of their counters to the track and then repeat Steps 2-5 above in turns.

**Knowing 1-5 means being able to work across a wide range of task, format and representational variation**

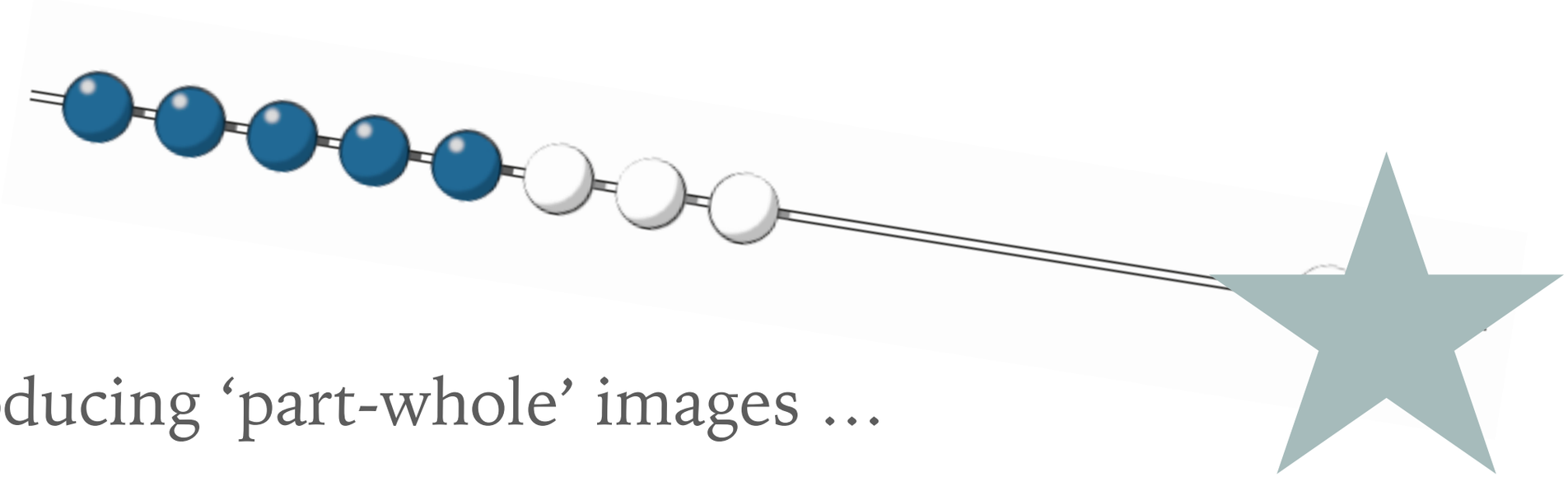
# MORE FIVE TRACK ACTIVITIES

| isiXhosa | Afrikaans | Other useful vocabulary |
|---|---|---|
| | | more |
| | | less |
| | | before |
| | | after |
| | | |

# WORKING WITH 1–10

- Show us 8 on your bead string
- Say what you see

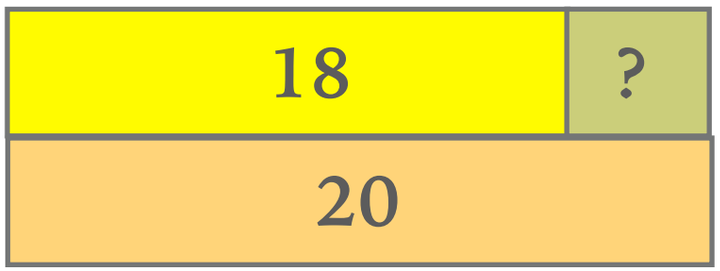
- Show what you see on your fingers
- On the 10-bead string, how many beads are hidden?



- Introducing ‘part-whole’ images …

# ‘NUMBERS WITHIN NUMBERS’

*20-bead string*




18 and ____ make 20

20 take away 18 leaves __

20 = 18 + __

20 = __ + 18

20 - 18 = __

20 - __ = 18

18 + __ = 20

__ + 18 = 20

__ = 10 - 18

18 = 20 - __

Make a part-whole combination on your bead string.
Draw a part-whole diagram for your combination.
Write some different word and number sentences that match your diagram

# TOWARDS KNOWING 1–10

Write and complete these number bond sentences:

10 = 7 + _

__ + 5 = 10

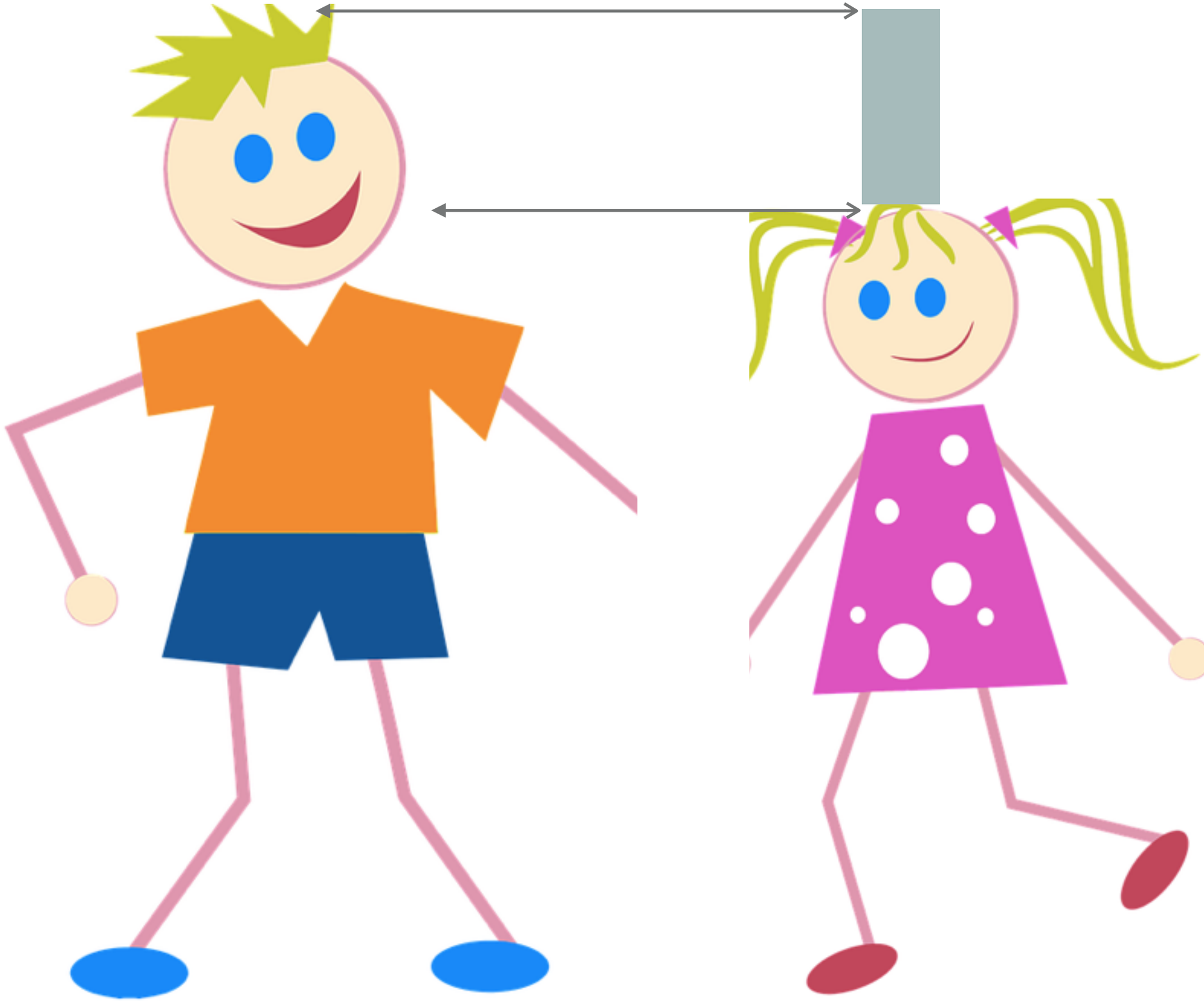
10 = 8 + ___

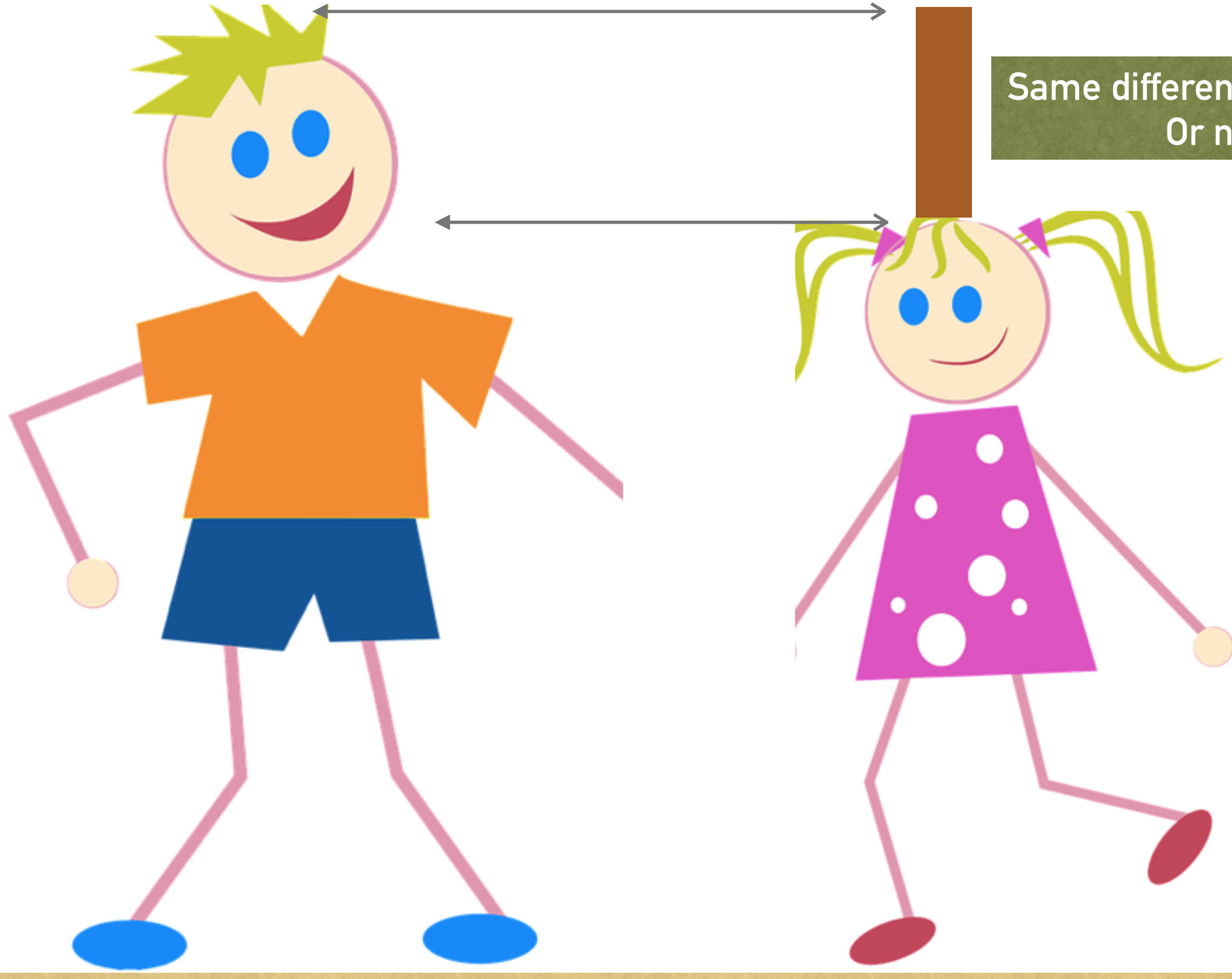
2 and __ makes 10

10 – 4 = __

9 more than _ makes 10

7 less than 10 is __




Same difference in height?
Or not?

# HAMSA & MIKE & CHAIRS & TABLES . . .

- Hamsa is 154cm tall & Mike is 182 cm tall. They both stand on a bench that is 6 cm high.
- What is the difference in their heights?

# USE HEIGHTS & CHAIRS THINKING . . .

- 202 - 179
- 406 - 398
- 481- 459

# HANDS & COUNTERS THINKING

- 49 + 52
- 63 + 28

# WORK OUT THE ANSWER . . .

- 29 + 83 + 71
- 156 and 19
- 203 - 198

**What kinds of ‘relational’ thinking about numbers might make these problems easier to work out?**