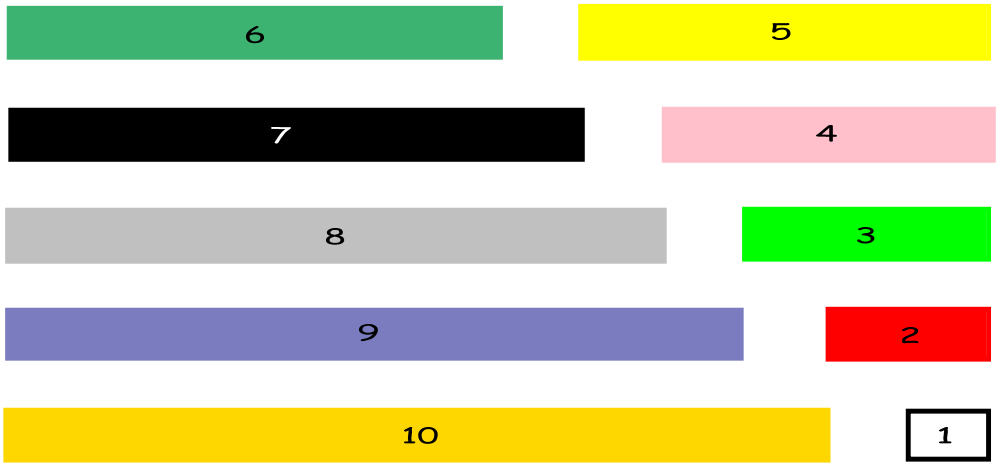
This problem is based on Cuisenaire rods if they are available

Making Trains

The children were using coloured rods of different lengths:



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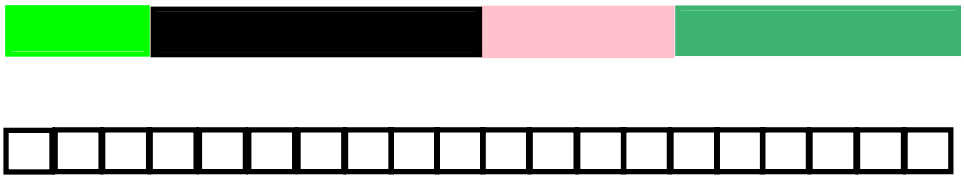
Matt made a train with 4 different coloured rods



Kate made a train the same length but using only white rods
Can you make trains the same length as Matt's but using only rods of one colour?

- Make trains that are the same length as 3 pink rods using different coloured rods
- Make a train the same length as 2 black rods and a light green without using any white rods

Learning and Teaching Objectives

- Use drawings and annotations to help visualise the problem
- Choose and use an appropriate method of recording
- Identify the given information and represent it in another way

Making Trains Solution

Matt's train is 20 units long

- 20 x 1
- 10 x 2
- 5 x 4
- 4 x 5
- 2 x 10

3 pink rods = 12 units

- 10 + 2
- 9 + 3
- 8 + 4
- 7 + 5
- 9 + 2 + 1
- 8 + 3 + 1
- 7 + 3 + 2
- 6 + 5 + 1
- 6 + 4 + 2 …

2 black rods and a light green = 17 units

- 10 + 7
- 9 + 8
- 6 + 6 + 5
- 5 + 5 + 5 + 2
- 4 + 4 + 9 …