

Yr 6 Exploration in maths Unit 1 (6761)

Additional teacher instructions for practice sheets

These notes indicate which practice sheets are most appropriate for which groups.

Day 1 How big is a million? Sheet 1

Working towards ARE / Working at ARE / Greater Depth

Greater Depth aim to complete the Challenge.

How big is a million?

Sheet 1

- Draw a one centimetre square.
- Inside draw 10 tiny dots.
- How many of these squares would you need to have 1000 dots?
What would the area be of that number of squares?
- How many of these squares would you need to have 1,000,000 dots?
What would the area be of that number of squares?
- Write the dimensions of a rectangle with that area.
You can use a calculator to help.
- Think of a place with approximately the same area.
- Now you have some idea of what 1,000,000 dots looks like!

Challenge

Each little dot represents one person.

How many places with the above area would you need to show the population of the world (approximately 8 billion)?

Exploration in maths

Answers

Day 1 How big is a million? Sheet 1



- How many of these squares would you need to have 1000 dots?
What would the area be of that number of squares? **100**
100cm² or 0.01m²
- How many of these squares would you need to have 1,000,000 dots?
What would the area be of that number of squares? **100,000**
100,000cm² or 10m²
- Write the dimensions of a rectangle with that area.
You can use a calculator to help. **e.g. 5m x 2m, 3m x 3.3m**
- Think of a place with approximately the same area. **e.g. This swimming pool**



Challenge

Each little dot represents one person. How many places with the above area would you need to show the population of the world (approximately 8 billion)?

= 8 billion divided by 1 million

= $8,000,000,000 \div 1,000,000 = 8000$ 'places'

e.g. 10 football pitches