

Building Bricks

125

How many possible ways can you find to partition the given number? Fill in each brick with a possible way. Can you fill all of the bricks?

How Odd

How many odd numbers are there between 3 and 11?

How many odd numbers are there between 4 and 11?

What do you notice?
Can you explain what you see?

Can you find any other pairs of numbers which have this same number of odds between them?

Can you find a pair of numbers which have four odd numbers between them?

Can you find another pair of numbers which have four odds between them? And another pair?

How would you find a pair of numbers that have five odds between them? Six odds?

Making Longer, Making Shorter

First, Ahmed used interlocking cubes to make a rod four cubes long:



How many cubes did he need to make a rod twice the length of that one?

How many cubes did he need to make one three times the length?

How many cubes did he need to make one four times the length?

How many cubes did he need to make a rod half the length of his first one?

How many cubes did he need to make a rod a quarter of the length of his first one?

The Puzzling Sweet Shop

2p



chews

3p



mini eggs

5p



Chocko bars

7p



lollypops

Rosie went into the sweet shop with 10p to spend. There were chews for 2p, mini eggs for 3p, Chocko bars for 5p and lollypops for 7p.

What could she buy if she wanted to spend all her money?

Alice, James, Katie and Henry went into the shop too. They each had 20p to spend and they all spent all of their money.

Alice bought at least one of each kind of sweet. Which one did she have two of?

James spent his money on just one kind of sweet, but he does not like chews. Which sweets did he buy?

Katie bought the same number of sweets as James but she had 3 different kinds. Which sweets did she buy?

Henry chose 8 sweets. What could he have bought?

Five Coins



Ben has five coins in his pocket.

How much money might he have?