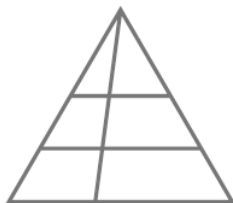


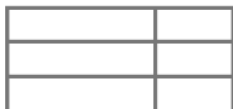
Maths Problems and Puzzles

**Spot the shapes 1**

1. How many triangles can you count?



2. How many rectangles can you count?



3. Draw your own diagram to count triangles.  
How many can a friend find?  
Can you find more?

**25**

**Teaching objectives**

Solve mathematical problems or puzzles.  
Visualise 2-D shapes.  
Explain methods and reasoning.

**Rows of coins**



1. Take five coins: 1p, 2p, 5p, 10p, 20p.  
Put them in a row using these clues.  
The total of the first three coins is 27p.  
The total of the last three coins is 31p.  
The last coin is double the value of the first coin.

2. Take six coins: two 1p, two 2p and two 5p.  
Put them in a row using these clues.  
Between the two 1p coins there is one coin.  
Between the two 2p coins there are two coins.  
Between the two 5p coins there are three coins.

What if you take two 10p coins as well, and between them are four coins?

**26**

**Teaching objectives**

Solve word problems involving money.  
Explain methods and reasoning.

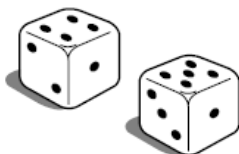
**Roly poly**

The dots on opposite faces of a dice add up to 7.

1. Imagine rolling one dice.  
The score is the total number of dots you can see.  
You score 17.  
Which number is face down?  
How did you work out your answer?



2. Imagine rolling two dice.  
The dice do not touch each other.



The score is the total number of dots you can see.  
Which numbers are face down to score 30?

**Teaching objectives**

Solve mathematical problems or puzzles.  
Add three or four small numbers.  
Explain methods and reasoning.

**27**