

Activity 1:

Super Shapes

Age 7 to 11 Short

Each of the following shapes has a value:

$$\triangle = 7 \quad \square = 17$$

The value of the red shapes changes in each of the following problems. Can you discover its value in each problem, if the values of the shapes are being added together?

- (a) $\triangle + \text{red semi-circle} + \square = 25$
- (b) $\square + 2\triangle + \text{red oval} = 51$
- (c) $2\triangle + 2\text{red pentagon} + 2\square = 136$
- (d) $3\text{red triangle} = 48$
- (e) $4\triangle + 2\text{red oval} + \square = 100$

Activity 2:

BEAM Maths of the Month

you need:

- four 1–6 or 0–9 dice
- counters
- paper and pencil each

Big numbers for 2 players

The aim of the game

In this game, you are trying to write down the same number as the other player. There is no winner.

When it is your turn

Roll all four dice in **secret** and arrange the numbers to make a four-digit number.

Write down that number in secret.

Read out your number and ask the other player to write down the number you say.

Look at what you have both written.

Is it the same? If it is, you both win a counter.

The end of the game

Keep playing until you both have 10 counters.

Try playing with even more dice.

Sample game

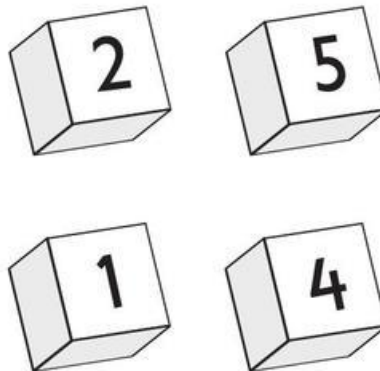
Josie rolled these dice and wrote down this number:

2514

She read out 'two thousand five hundred and fourteen', but Henry wrote down this number:

20514

So neither of them won a counter.



Activity 3:

BEAM Maths of the Month

you need:

- three 1–6 dice
- two pens in different colours

Writing numbers for 2 players

When it's your turn

Roll the dice and arrange them to make a three-digit number. Say the number.

Write that number in the ring which describes that number, using your pen.

The end of the game

Keep playing until one player has written three numbers in each of three different rings. (For example, three numbers in '200 to 300', another three in '300 to 400' and another in 'over 600'.)

That player wins.

Rule

Both players can put numbers in the same ring.

100 to 200

200 to 300

300 to 400

400 to 500

500 to 600

over 600

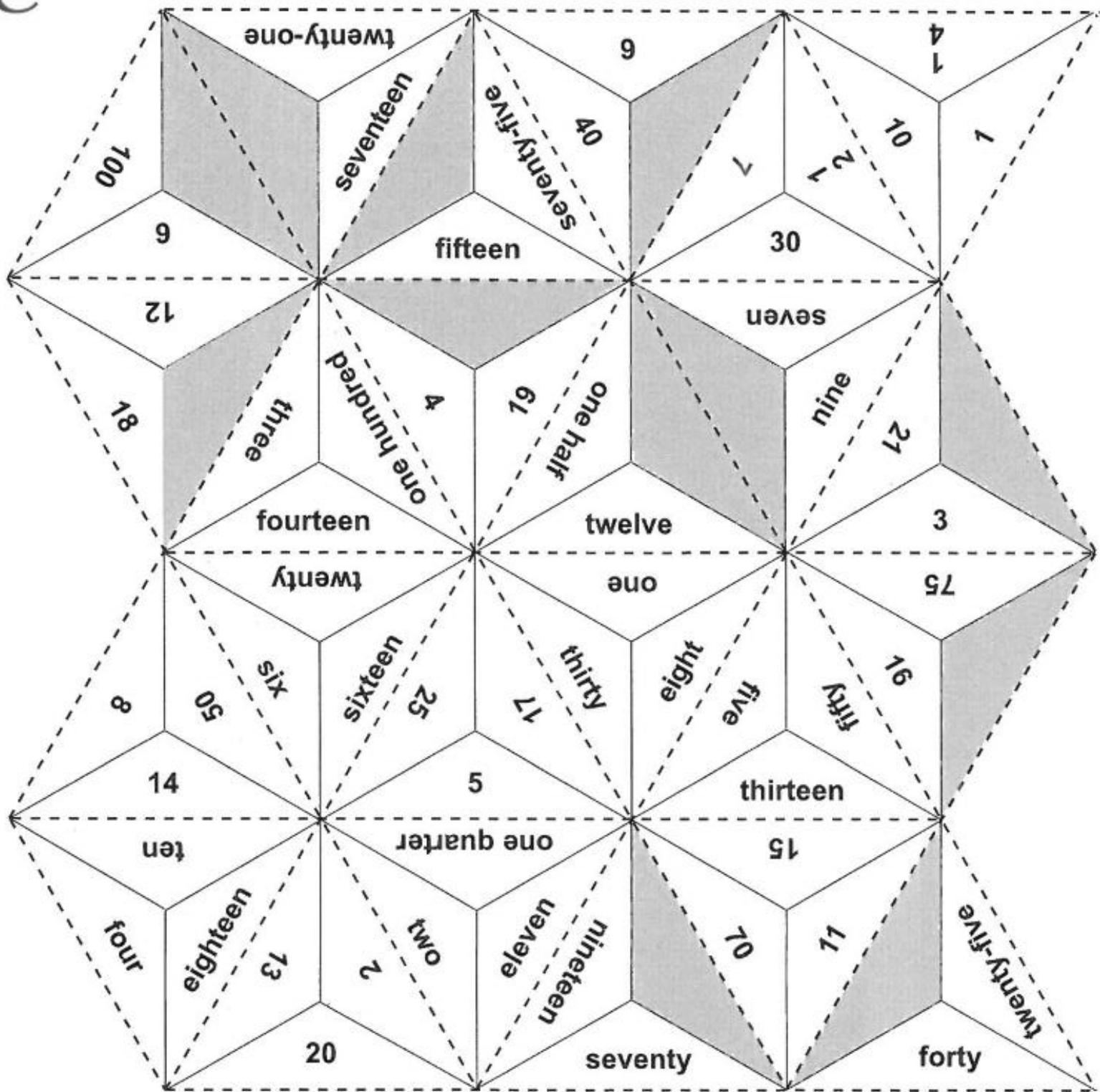
Activity 4:

1. Cut out the 24 equilateral triangles along the dotted lines.

2. Match the words to the numbers.



3. Fit the triangles together to make one large hexagon. The shaded marks show the edges of the hexagon.



Activity 5:

- 1 Mo and his four friends eat a meal.
They each pay for part of the meal.
Mo pays £5.20
Each of his friends pay £3.80
How much did the meal cost in total?

- 2 What fraction of the shape is shaded?



- 3 A fish tank holds 30 litres of water.



The fish tank is $\frac{3}{5}$ full.

How much more water is needed to fill the tank?