



Rich Learning Tasks

Dr. Marian Small



Problem Solving and Reasoning

Name:

Number

More and More

Choose a selection of counters, blocks or teddies and count them.
Now make a second selection choosing twice as many as you had in the first set (you should now have 2 sets of objects, with twice as many in the second set as there are in the first set).

How many do you have now in total?

Repeat this for lots of different selections.

What are the total numbers you could get?

What are the total numbers you could not get? Why not?

Name:

Number

Coins

Eight coins are worth a little bit less than 7 coins.

What could the coins and their values be?

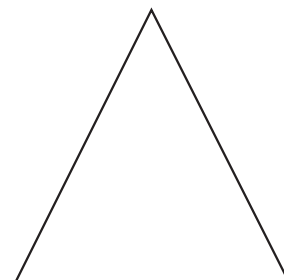
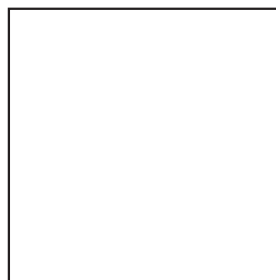
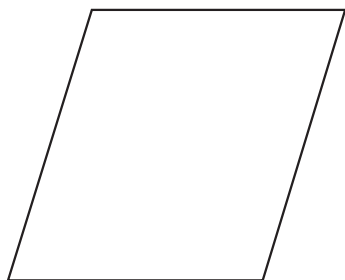
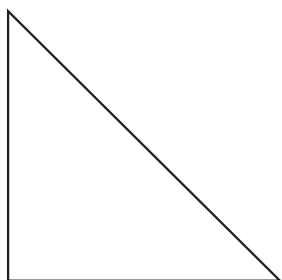
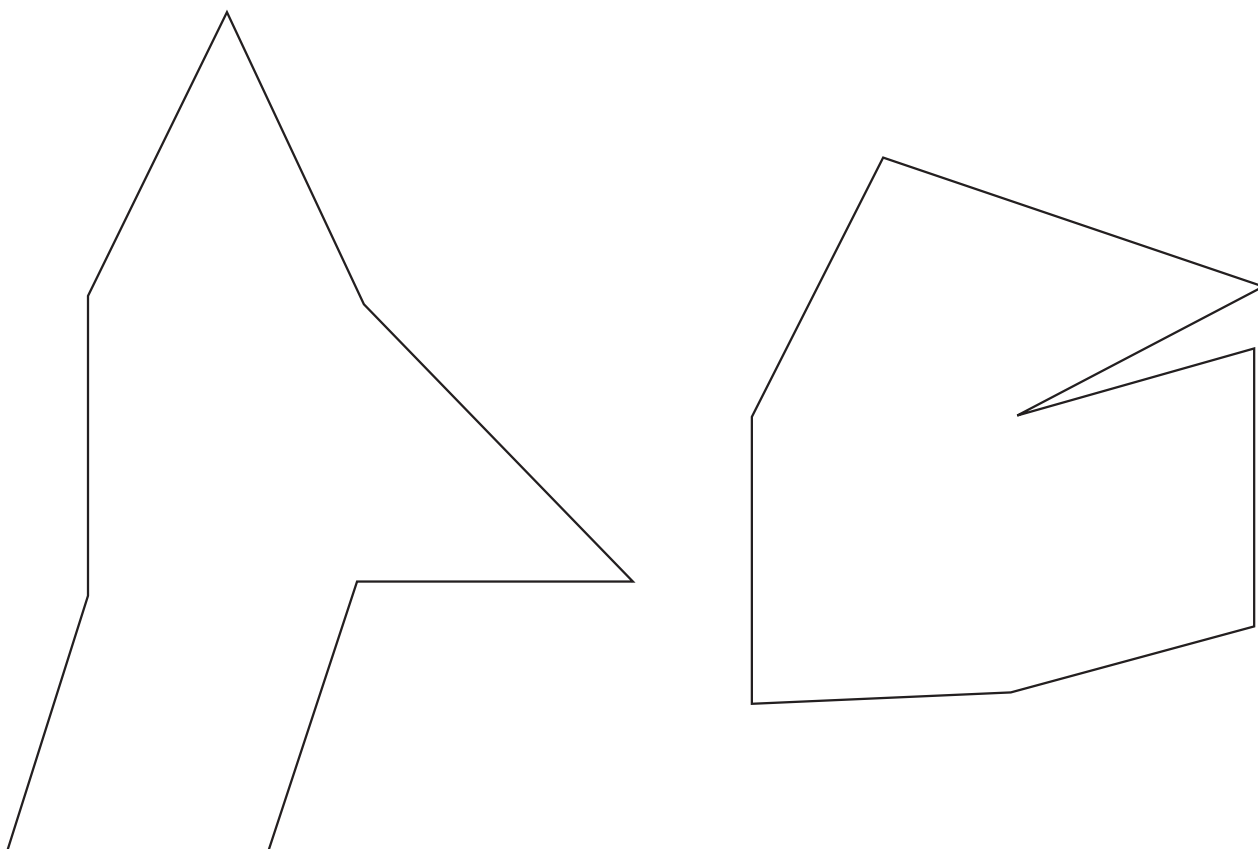
Write down lots of different possibilities.

Name: _____

Shape Puzzle

Cut out the shapes at the bottom of this sheet and use them to cover each of the shapes at the top.

What about the big shapes helped you the most to work out where to put the pieces?



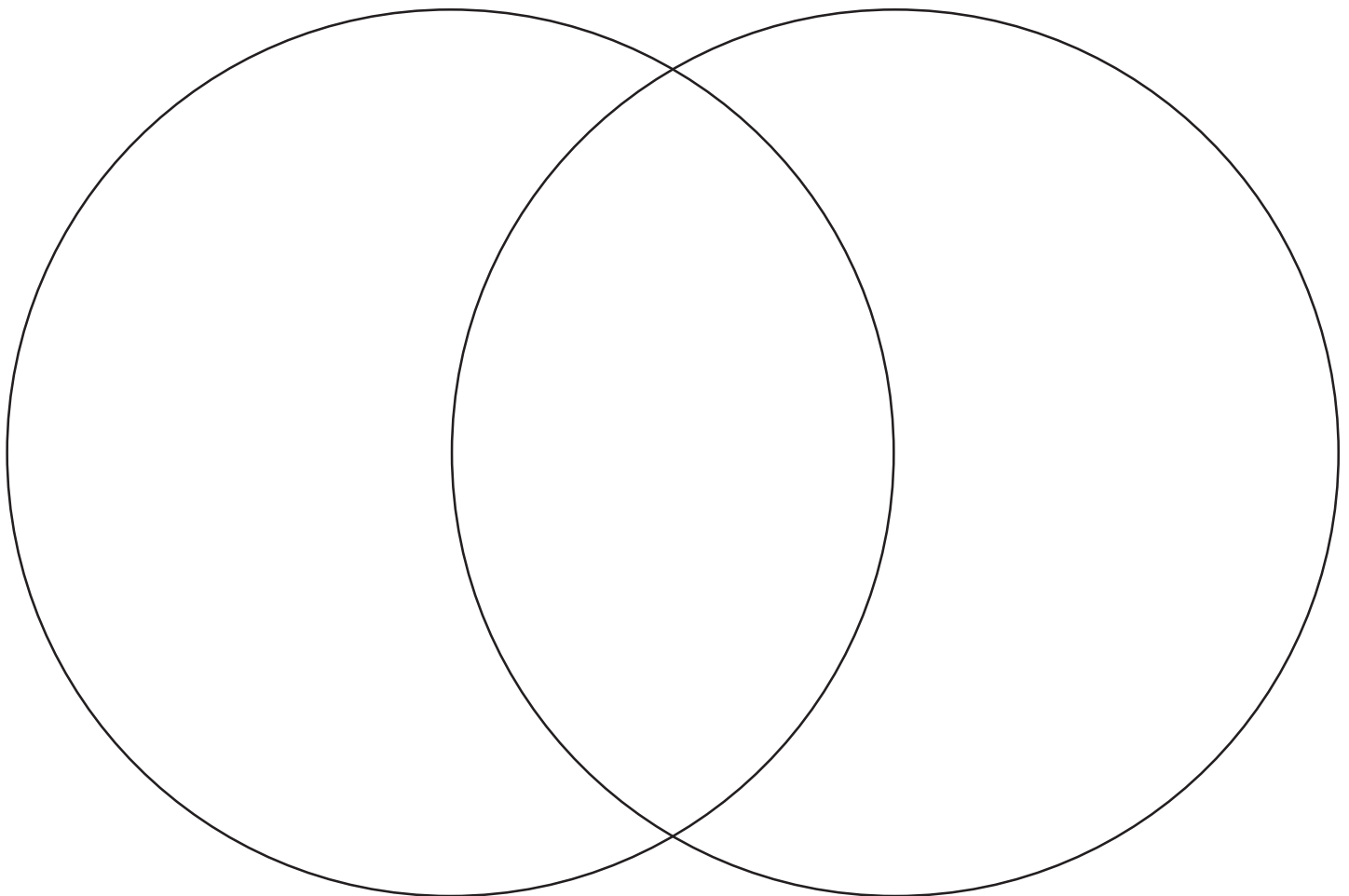
What Goes Where?

You can only put shapes inside each circle that go together for some reason. You can find the shapes on the next page.

Describe what the shapes you have chosen have in common by writing a word for each circle. The word explains what the shapes have in common.

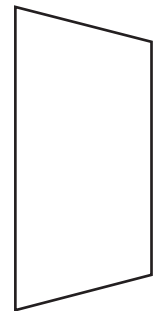
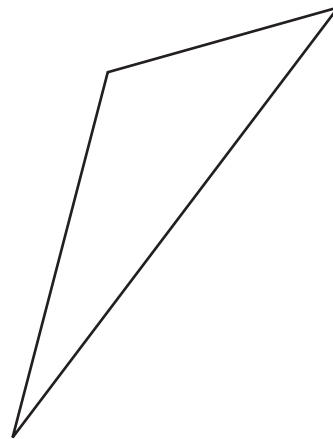
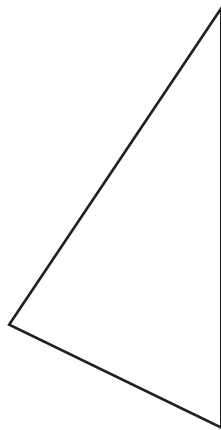
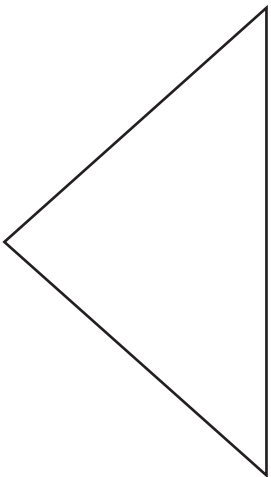
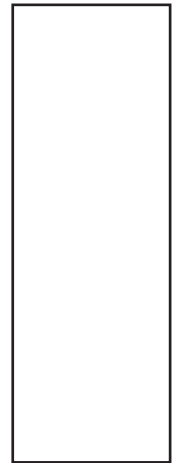
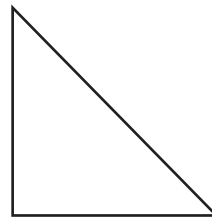
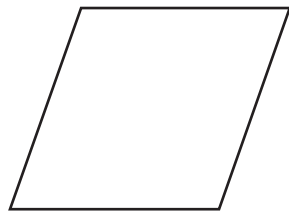
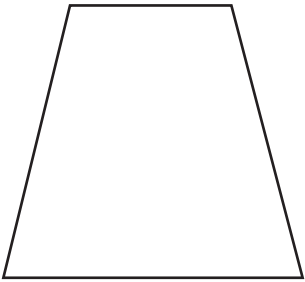
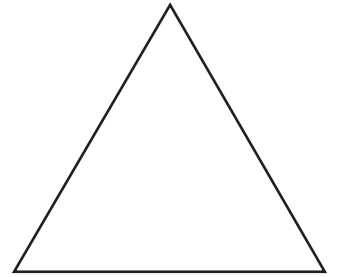
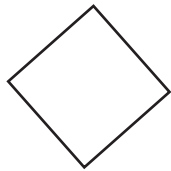
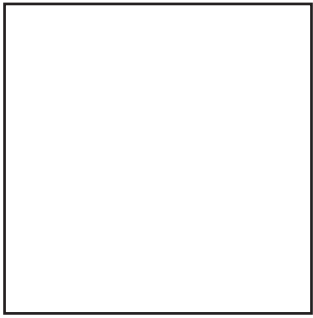
You have to choose words for the circles so that there are shapes in all three parts of the circle diagram. The shapes in the middle have to fit the rule for both circles.

Try to do this in lots of different ways.



Name: _____

What Goes Where?



Name:

How Many Units?

You will need:

Paper clips of different sizes.

You are going to measure the red line below with paper clips.

First, choose a paper clip so that it takes A LOT of them to measure the line.

Then choose another size paper clip so that it doesn't take TOO MANY.

Can you choose a paper clip so that it takes more than 3, but fewer than 5 to measure the line?



Name:

Hundred Chart

Colour some of the squares in the hundred chart below to make a pattern.

Look carefully at the numbers you have coloured - describe what you notice about the numbers you have coloured.

You might want to add or subtract the numbers if you want to talk about things you noticed about the sums or differences.

Repeat the task with another pattern.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Name:

More and More Dots

Here is a pattern of dots that is growing.

There are more dots in each picture.



Picture 1



Picture 2



Picture 3

Follow the pattern to draw picture 4.

How many dots will there be in picture 4?

Make up your own pattern of dots so that there are 10 dots in your pattern's fourth picture.

Make sure you can describe what sequence the pattern follows.

Repeat for several more patterns with the fourth picture showing 10 dots.

Name:

Brothers

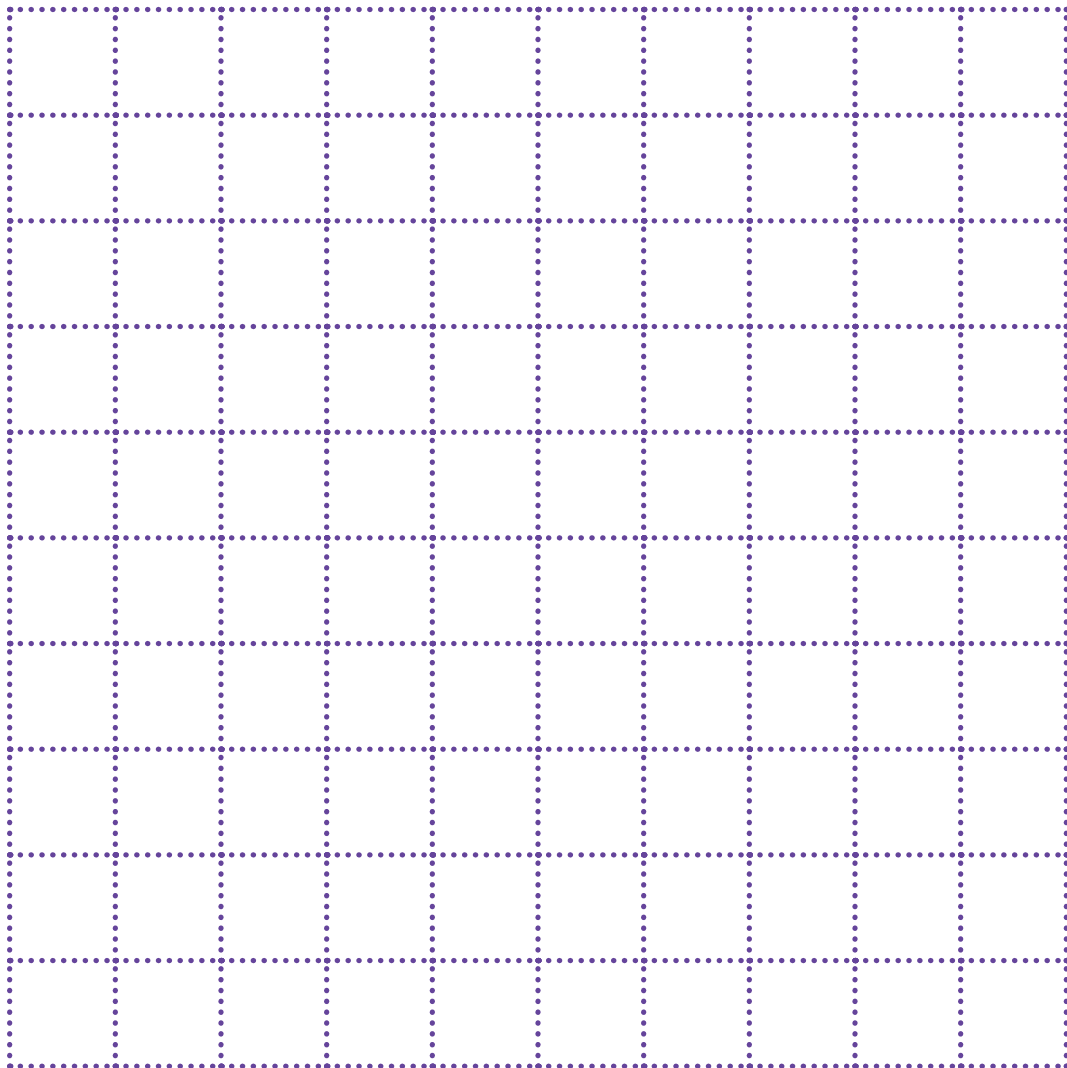
You are going to ask all the other students in your class how many brothers they have and draw a graph to show the results.

What do you predict the graph will look like? How will you present the results?

Make a pictogram of your prediction using the grid below.

What icons will you use in your pictogram?

Now survey the class and record your results. Draw a pictogram of the actual results and compare the two graphs.



Name:

What is this About?

What might this graph be about?

Explain what you think by writing a title for the graph and a title for each bar.

Make sure your ideas make sense.

Write down 4 things that the graph tells you. You could compare the size of the bars and refer to the number of sections in each bar.

Can you think of any other things the graph could be about?

