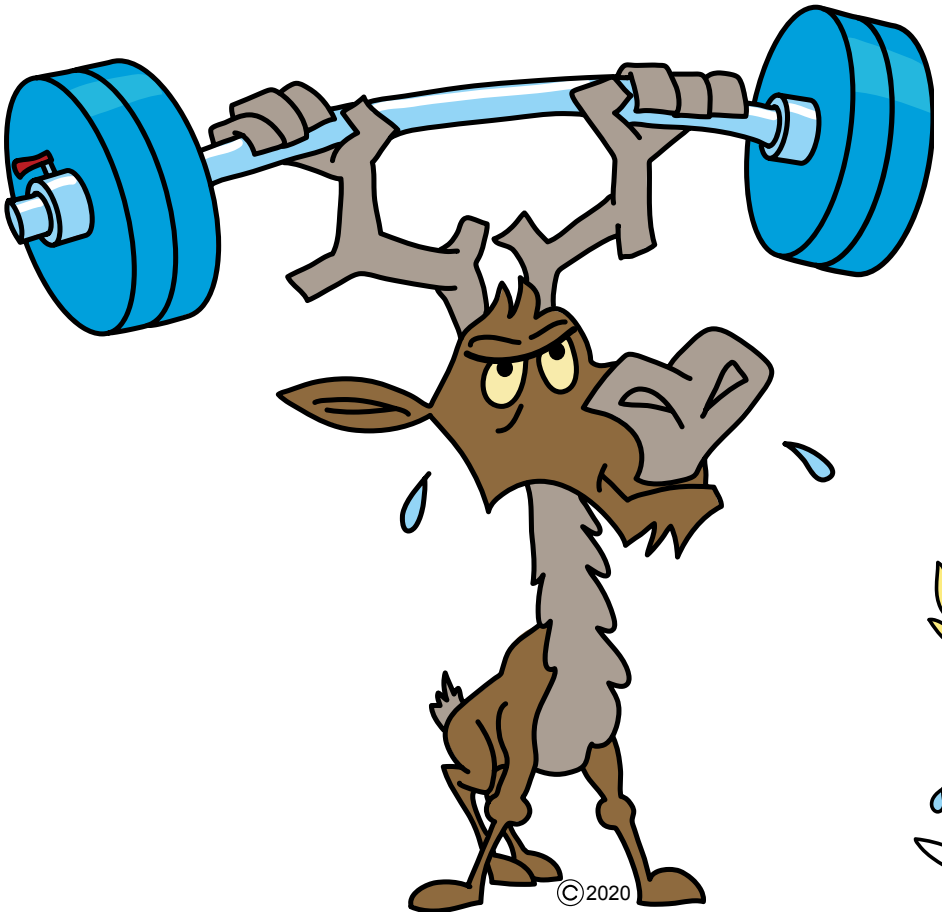
Colin and Coco's Daily Maths Workout

Workout 2.7

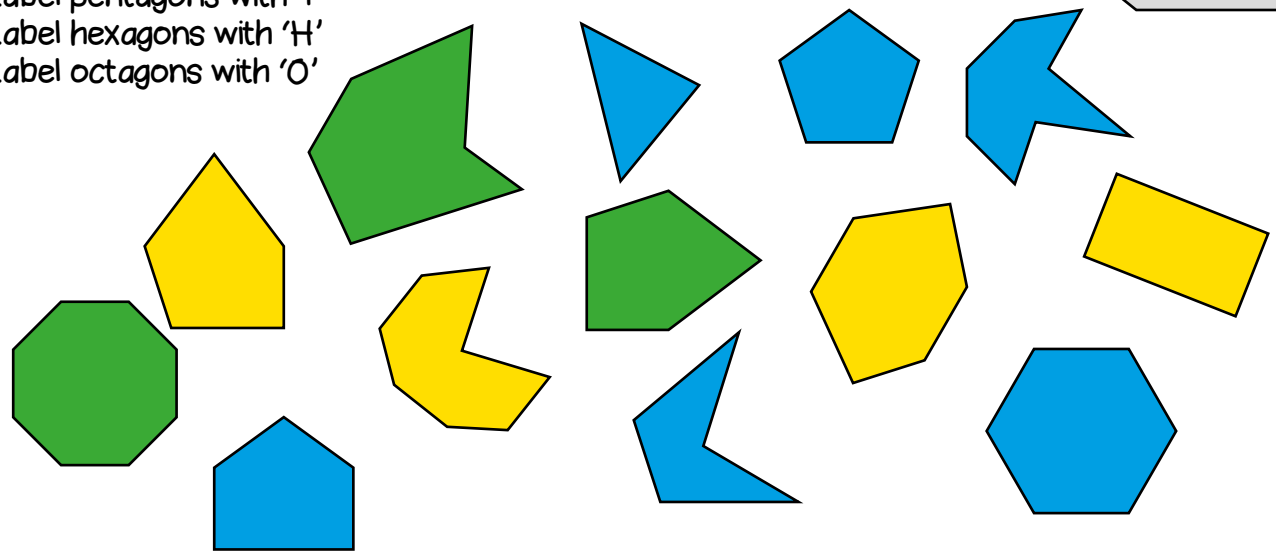
Properties of Shapes



Shape Workout

Workout A

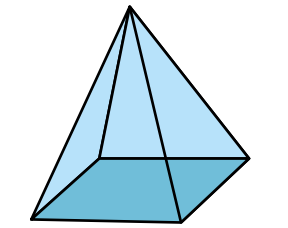
Label pentagons with 'P'
Label hexagons with 'H'
Label octagons with 'O'

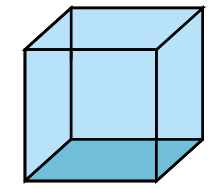


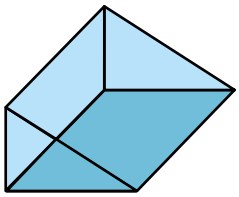
Shape Workout

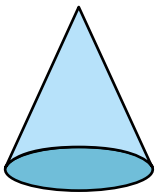
Workout B

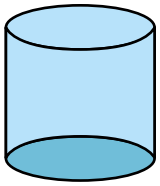
Name the 3D shapes





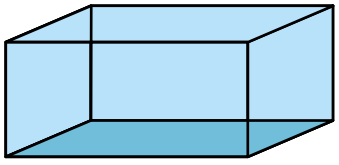


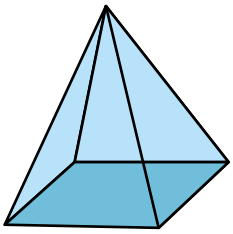


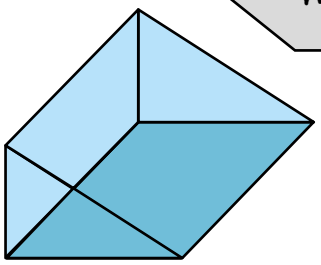


Shape Workout

Workout C







☐ Vertices
☐ Edges
☐ Faces

☐ Vertices
☐ Edges
☐ Faces

☐ Vertices
☐ Edges
☐ Faces

Build a Shape Game

Workout D

You need:
Build a Shape Board
1- 6 dice or cards (at the back of this pack.)

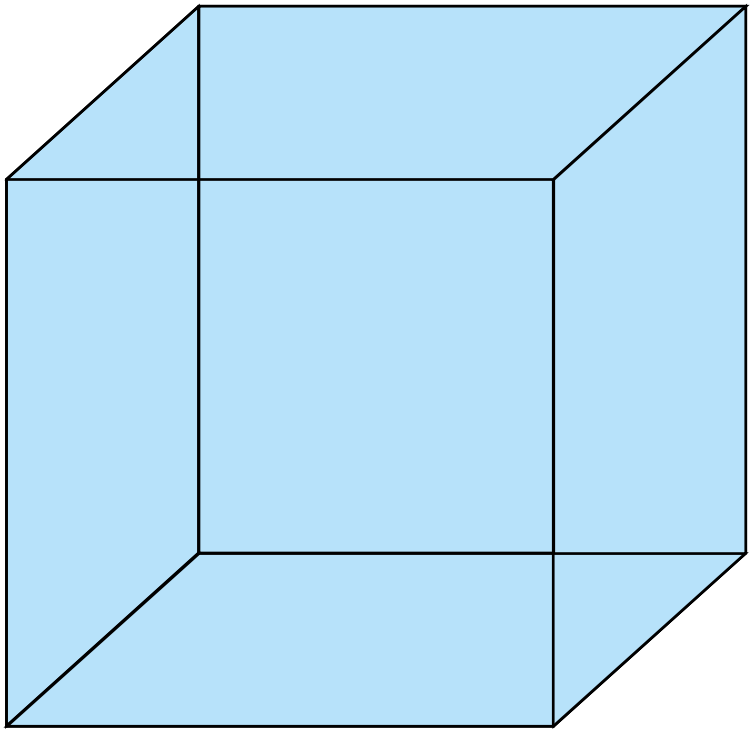
To play:
Shuffle the cards and place them face down on the table.
Every time it is your turn you turn over a card (or throw the dice.)
If it is a 1,2 or 3 you get a square face for your shape.
If it is a 4 or 5 you get a triangle.
If it is a 6 you can choose either.
You are aiming to make a cube and a pyramid with a square base.

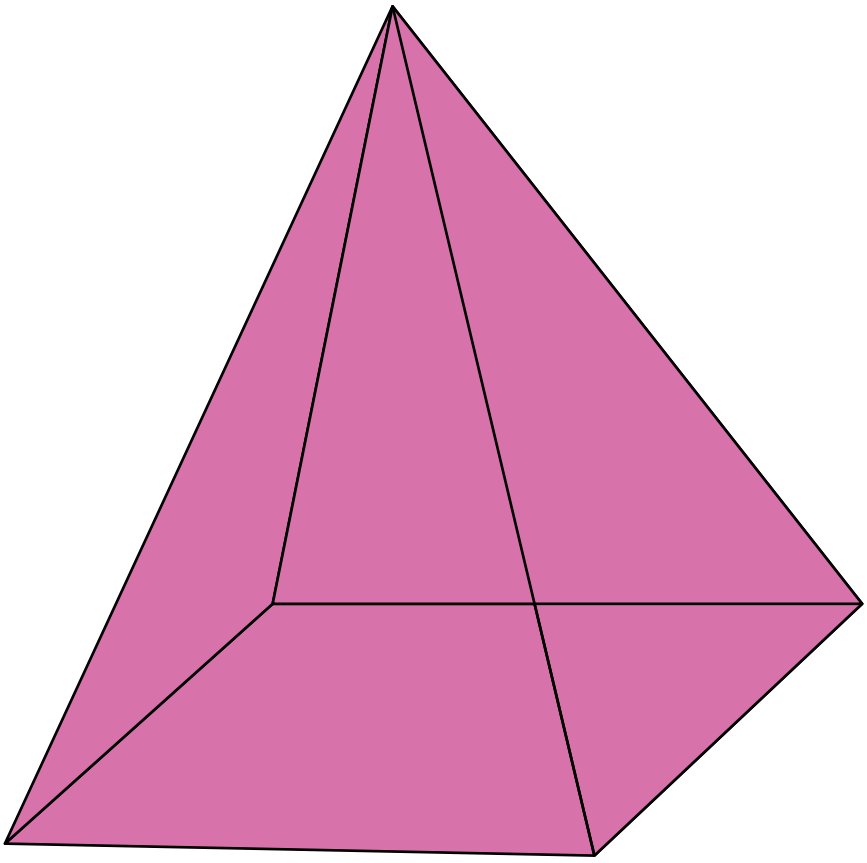
I have thrown a 4 so get a triangle face for my pyramid.

I have thrown a 2 so get a square face for my cube.
I need 2 more square faces to complete my cube.

To win:
The winner is the first player to build both their shapes.

Build a Shape Board





Missing Number Workout

Workout E

Colin is playing with different types of 2-D shapes.
Place digits in the empty boxes to complete the statements
in several different ways.

1 Square + ☐ Triangles = 1 ☐ Sides

☐ Triangles = ☐ 5 Corners

1 Octagon + ☐ Squares = ☐☐ Vertices

1 Octagon + ☐ Pentagons = ☐☐ Sides

1 Pentagon + ☐ Hexagons = ☐☐ Sides

Now complete all the statements together
using the digits 1, 2, 3, 4, 5, 6, 7 and 8 at least once each.

Sticks Challenge

Workout F

Colin finds some straight sticks.
They are two different lengths - long sticks and short sticks!

He uses three of them as the sides of a shape.
Sketch the shapes he might have made.

What if he used five of them to make a shape? He uses one stick for each side.
Sketch some of the shapes he might make now.

Colin makes some shapes using 3 long and 3 short sticks.
Sketch his shapes.

Word Problems

Colin has a bag of cards with shapes on them.

1. He pulls out 3 pentagons.
How many sides can he count in total?

2. He pulls out 2 octagons.
How many sides can he count altogether?

3. He pulls out 1 hexagon and 2 squares.
How many sides can he count in total?

4. He pulls out a mixture of triangles and squares. He counts 10 vertices. How many of each shape has he pulled out?

5. He pulls out a mixture of triangles and pentagons. He counts 19 sides. How many of each shape has he pulled out?

6. He pulls out some shapes and thinks there are triangles. He counts 16 sides in total. Explain why the shapes cannot be triangles.

7. Coco likes to go on a Shape Treaure Hunt.
If Coco visited your house, where would she find ....

Shape	Where in your house?
Circle	
Triangle	
Rectangle	
Pentagon	
Hexagon	
Octagon	

Workout H

Who am I?
Workout

Use the clues to work out Colin's mystery number.

You may want to cross numbers out on the 100 grid as you consider each clue.

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

1) I am odd
2) I am less than 60
3) I have two digits
4) I am more than 20
5) I am not in the 10 times table
6) One of my digits is even
7) The sum of my digits is more than 8
8) The difference between my digits is less than 6
9) I am in not the 5 times table
10) If you count in 3s from zero you will say me

Colin's mystery number is ☐

Create your own 'Who am I?' puzzle

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

Please share your puzzle with Colin @MathsCanDo