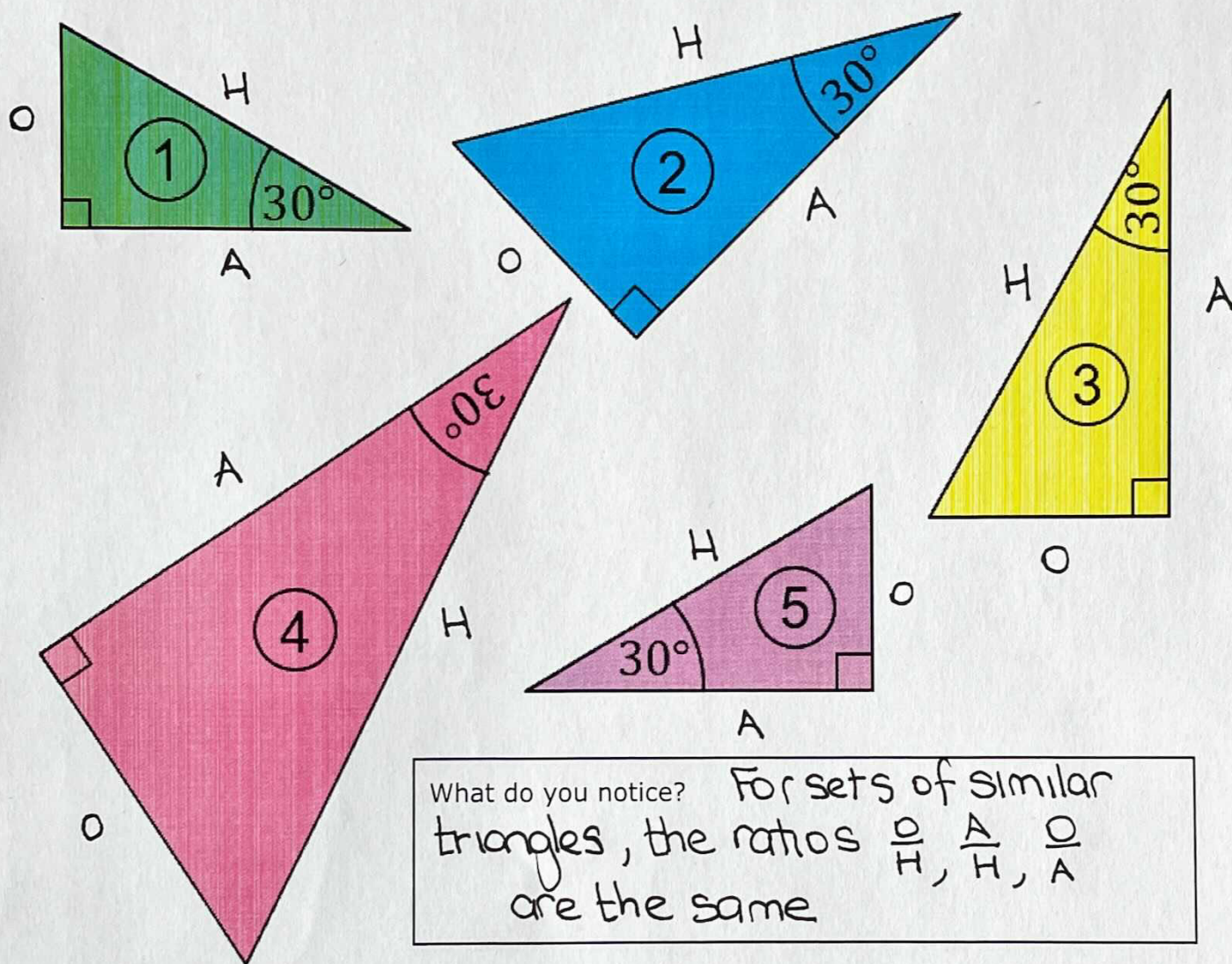


## Investigating Similar Triangles

The five triangles drawn are similar right-angled triangles. This means that they have the same set of three angles, in this case  $30^\circ$ ,  $60^\circ$  and  $90^\circ$ .

- (a) Label the sides of each triangle – H for hypotenuse, O for opposite and A for adjacent.
- (b) Measure the lengths of each of the sides to the nearest mm, and fill into the table.
- (c) Calculate the ratio of each pair of lengths using your calculator, to 2 decimal places.



Triangle	Opposite (mm)	Adjacent (mm)	Hypotenuse (mm)	$\frac{Opposite}{Hypotenuse}$	$\frac{Adjacent}{Hypotenuse}$	$\frac{Opposite}{Adjacent}$
1	30	53	61	0.49	0.87	0.57
2	40	70	80	0.50	0.88	0.57
3	37	65	74	0.50	0.88	0.57
4	57	98	114	0.50	0.86	0.58
5	32	54	63	0.51	0.86	0.59