**Fraction shape puzzles**

**What is the value of each tangram piece?**

**1.** If the combined value of all seven Tangram pieces arranged in a square
is 1, what is the value of each individual piece?



Write your fractions in the boxes below and on the tangram diagram.

|  |  |  |  |
| --- | --- | --- | --- |
| **a)** Each large triangle |  | **d)** Square |  |
| **b)** Medium triangle |  | **e)** Parallelogram |  |
| **c)** Each small triangle |  |  |  |

**Equivalent fractions**

**2.** **a)** How many small triangles do you need to make a medium triangle?

  **b)** Write a number sentence showing the two equivalent fractions.

**3.** **a)** How many small triangles do you need to make a large triangle?

 **b)** Write a number sentence showing the two equivalent fractions.

**4. a)** How many squares do you need to make the whole tangram?

 **b)** Write a number sentence showing the two equivalent fractions.

**Fraction addition**

**5. a)** Create a new shape that is $\frac{1}{2}$ and draw the pieces below (you may need to borrow from and share shapes with a partner).

**b)** Write a number sentence showing how these different fractions add to $\frac{1}{2}$ .

**c)** Can you use a different set of pieces to make $\frac{1}{2}$, draw the shape and write a number sentence showing how these pieces add to $\frac{1}{2}$ .

**6. a)** Create a new shape that is $\frac{3}{4}$ and draw the pieces below.

**b)** Write a number sentence showing how the different fractions add to $\frac{3}{4}$ .

**7. a)** Create a new shape that is 1 whole using all the tangram pieces and draw the pieces below.

**b)** Write a number sentence showing how the different fractions add to 1.

**c)** You know now that each small triangle is $\frac{1}{16}$. Can you rewrite your number sentence from part **b)** expressing each shape as a fraction with denominator of 16?

**8.** Challenge!Can you use some of your tangram pieces, create a shape, remove a piece and write a number sentence that describes the subtraction you have modelled?