

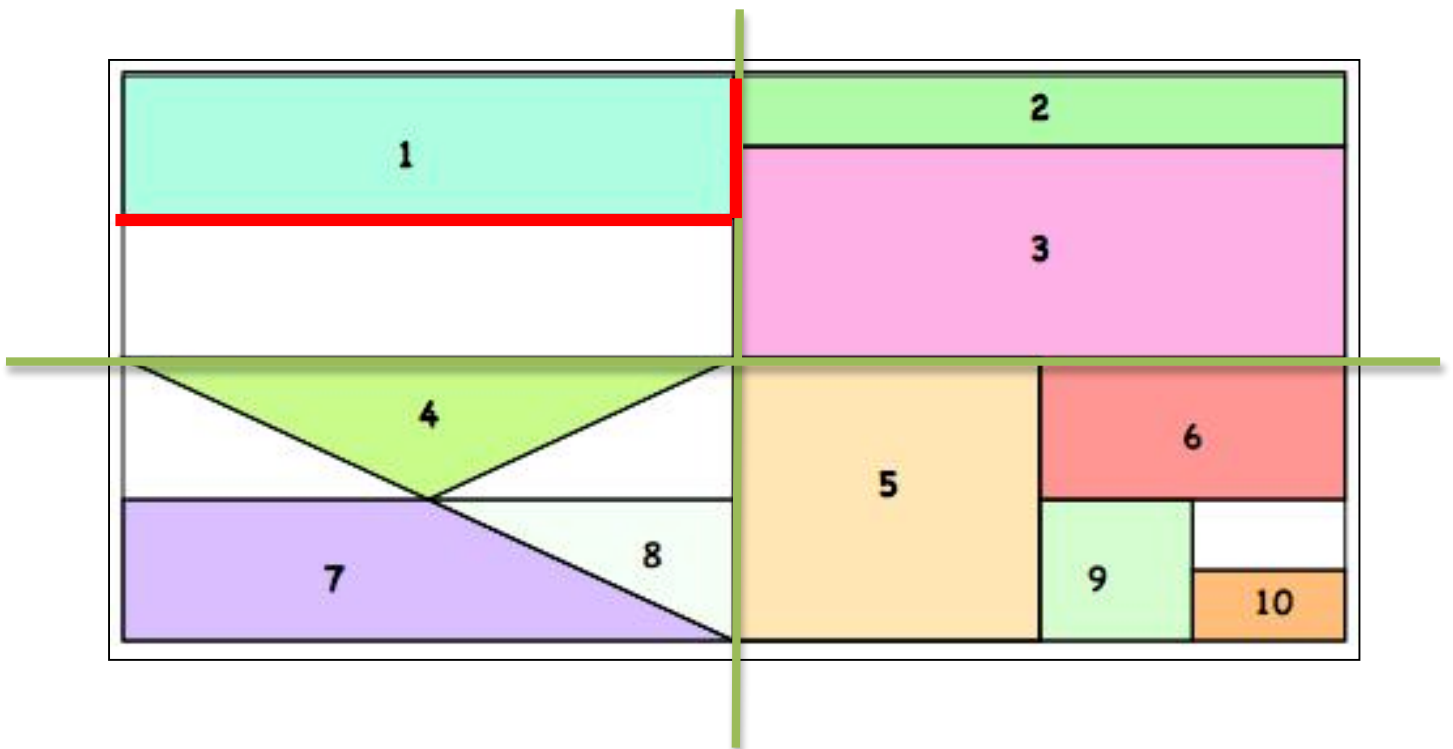
Thanks to Jack S for the diagrams!

Shape 1

Jack S: Number 1 is $\frac{1}{8}$ because you can split the picture into quarters so half of the space taken up is an eighth.

Abi, Maddie and Zoe: The answer is $\frac{1}{8}$ because 8 times number 1 is the whole $1 \times 8 = 1$ whole.

Matthew: It's $\frac{1}{8}$ because it's half of $\frac{1}{4}$ and you can fit 8 of them into the whole shape.

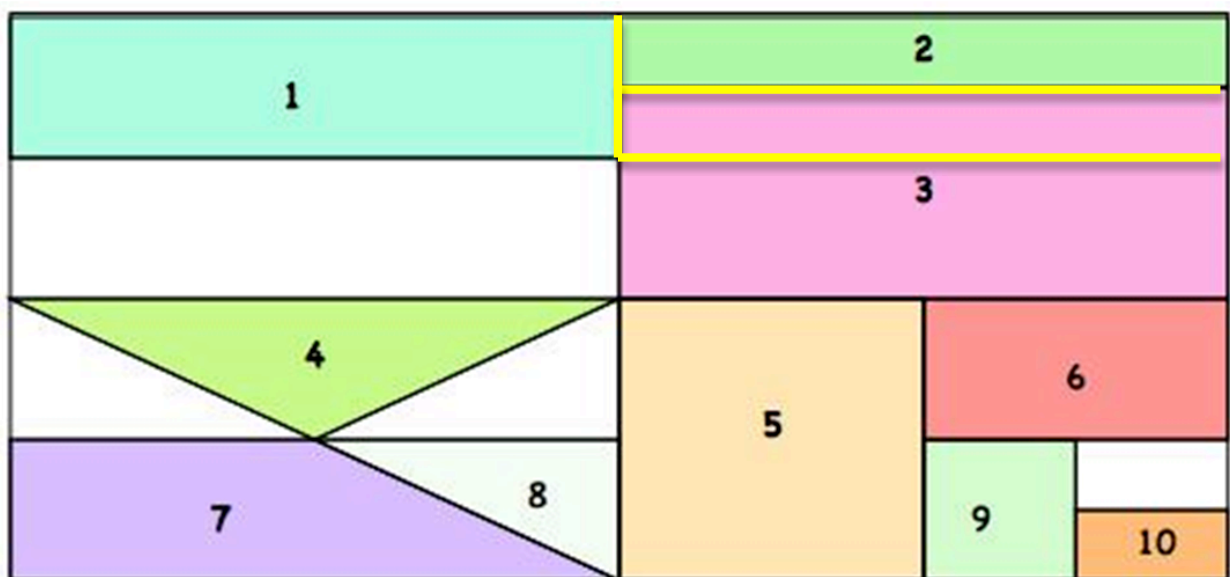


Shape 2

Jack S: Number 2 is a $\frac{1}{16}$ because if number 1 is an eighth, then number 2 is half the size so it's a sixteenth.

Abi, Maddie and Zoe: The answer is $\frac{1}{16}$ because number 2 is exactly half of number 1 so you have to double the denominator to equal the whole.

Matthew: its $\frac{1}{16}$ because it is half of number 1 and you can fit 16 of them in altogether.



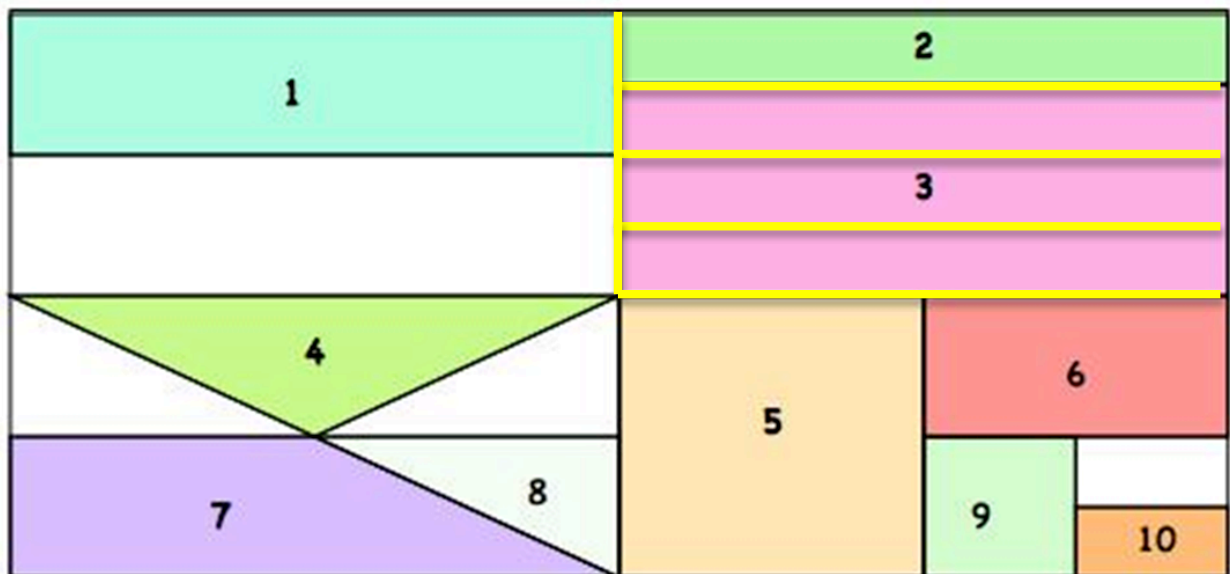
Shape 3

Jack S: Number 3 is $\frac{3}{16}$ because when the shape is split into quarters, the shape takes up $\frac{3}{4}$ of a quarter, so it's $\frac{3}{16}$.

Abi, Maddie and Zoe: The answer is $\frac{3}{16}$ because we have worked out number 2 is $\frac{1}{16}$ and number 3 is 3 times that so it's $\frac{3}{16}$.

Also $\frac{1}{16}$ add $\frac{3}{16}$ equals $\frac{4}{16}$ so and number 2 and 3 equals $\frac{4}{16}$ of the whole.

Matthew: it's $\frac{3}{16}$ because it is the same as 3 lots of the number 2.



Shape 4

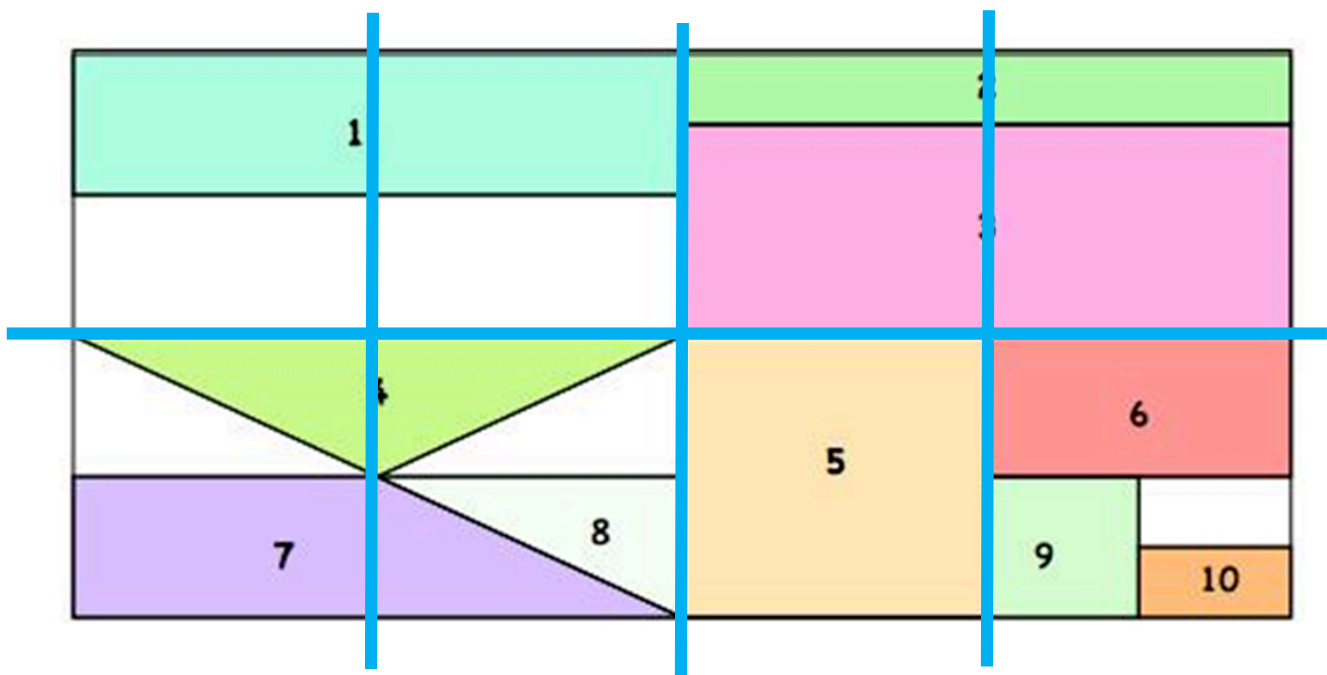
Abi, Maddie and Zoe

The answer is $\frac{1}{16}$ because the quarter where number 4 is in can fit number 4 in 4 times so $4 \times 4 = 16$

Shape 5

Jack S: Number 5 is an $\frac{1}{8}$ because if the whole shape is split into quarters, then half of a quarter is an eighth.

Abi, Maddie and Zoe: $\frac{1}{8}$ because 2 times that shape equals the quarter so 8 times the shape is the whole.



Abi, Maddie and Zoe:

Shape 6

1/16 because it is half of number 5 so you double the denominator.

Shapes 7 & 8

Shape 8 is 1/32 because 32 lots of this shape equals the whole. Shapes 7 and 8 together is the same as shape 1, which is 1/8.

Shape 7 is $\frac{3}{4}$ of the 1/8 and shape 8 is $\frac{1}{4}$ of the 1/8. So shape 7 is 3/32 because it is three times number eight, which is 1/32.

Shapes 9 & 10

9 is half of 6 so you double the denominator. It is 1/32 which is the same as shape 8.

10 is half of 9, so you double the denominator, making 1/64.