# Problems of the Day *Day 2 Answers*

1 Ron and Eva each make a 3-digit number from these digit cards.




- Ron makes the largest even number possible.
- Eva makes the smallest odd number possible.

What is the difference between their numbers?

The largest even number must be 836

The smallest odd number must be 683

The difference between them is 836-683 = **153**

**2** Circle all the fractions that are greater than 1 but less than 2

$\frac{12}{5}$ $\frac{12}{6}$ $\frac{12}{7}$ $\frac{12}{8}$

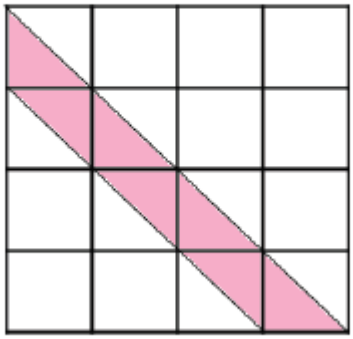
$\frac{12}{5} = 2\frac{2}{5}$ ✗ (It is not less than than 2)

$\frac{12}{6} = 2$ ✗ (It is not less than than 2)

$\frac{12}{7} = 1\frac{5}{7}$ ✓ (It is less than than 2, but greater than 1)

$\frac{12}{8} = 1\frac{4}{8}$ ✓ (It is less than than 2, but greater than 1)

3 What fraction of this shape is shaded?



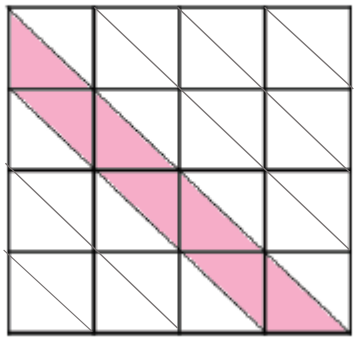
Altogether, 7 half squares are shaded.

Our denominator must be the number of half squares altogether – which must be 32 (as there are 16 whole squares)

So 7 out of 32 half squares are shaded = $\frac{7}{32}$

Another way of looking at it is to divide the shape into equal parts like this:

3 What fraction of this shape is shaded?



We can see that 7 out of 32 parts are shaded.