

Fractions - Lesson 3

Today we are going to start with a little revision of yesterday's lesson and then move on to think about equivalent fractions.

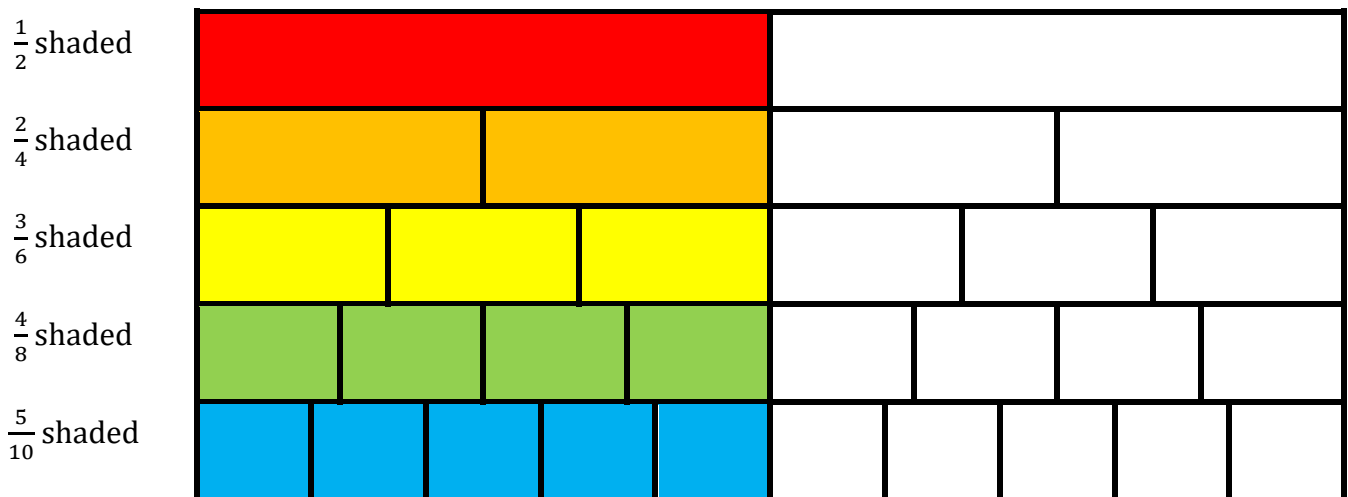
First try these examples. What do you notice about the answers?

- 1) $\frac{1}{2}$ of 360 2) $\frac{2}{3}$ of 360 3) $\frac{2}{4}$ of 360 4) $\frac{4}{6}$ of 360 5) $\frac{3}{6}$ of 360
 6) $\frac{6}{9}$ of 360 7) $\frac{4}{8}$ of 360 8) $\frac{3}{4}$ of 360 9) $\frac{5}{10}$ of 360 10) $\frac{6}{8}$ of 360

Did you notice that all the odd numbered questions have the same answer? Questions 2), 4) and 6) have the same answers as do question-s 8) and 10).

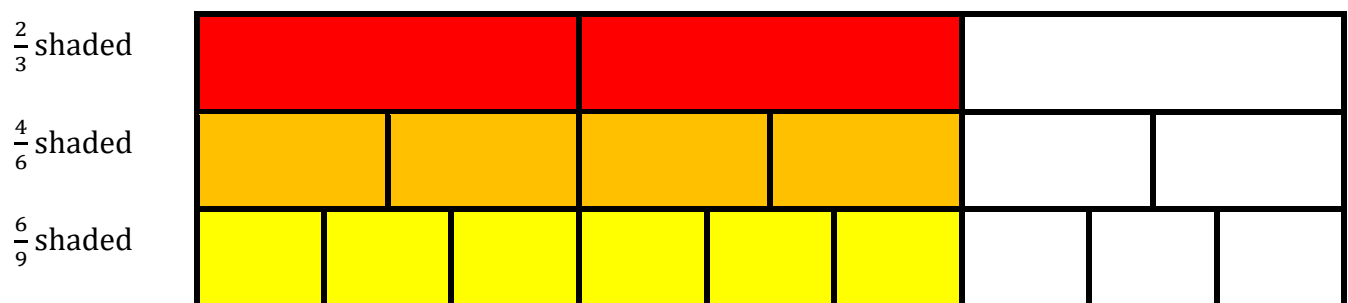
Why is this? Could you have predicted this before you did the calculations?

$\frac{1}{2}$, $\frac{2}{4}$, $\frac{3}{6}$, $\frac{4}{8}$ and $\frac{5}{10}$ are equivalent fractions. Perhaps this diagram will help you to see why: -



$$\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{4}{8} = \frac{5}{10}$$

Also: -

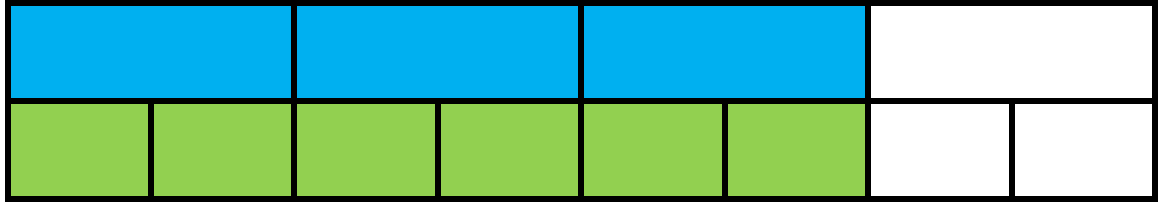


$$\frac{2}{3} = \frac{4}{6} = \frac{6}{9}$$

And: -

$\frac{3}{4}$ shaded

$\frac{6}{8}$ shaded



$$\frac{3}{4} = \frac{6}{8}$$

As you learned earlier in the year, we can create equivalent fractions by multiplying or dividing the numerator and denominator (top and bottom) of a fraction by the same number.

For example: -

$$\begin{array}{c} \times 5 \\ \frac{3}{4} = \frac{15}{20} \\ \times 5 \end{array}$$

$$\begin{array}{c} \times 7 \\ \frac{4}{5} = \frac{28}{35} \\ \times 7 \end{array}$$

$$\begin{array}{c} \div 6 \\ \frac{30}{42} = \frac{5}{7} \\ \div 6 \end{array}$$

Copy and complete: -

11) $\frac{2}{3} = \frac{10}{\quad}$

12) $\frac{10}{12} = \frac{\quad}{6}$

13) $\frac{3}{4} = \frac{\quad}{28}$

14) $\frac{15}{18} = \frac{5}{\quad}$

15) $\frac{4}{5} = \frac{24}{\quad}$

15) $\frac{24}{36} = \frac{\quad}{9}$

17) $\frac{5}{7} = \frac{\quad}{70}$

18) $\frac{30}{50} = \frac{3}{\quad}$

19) $\frac{4}{9} = \frac{32}{\quad}$

20) $\frac{28}{56} = \frac{14}{\quad}$