

Equivalent fractions

1 Draw lines to match the equivalent fractions.

$\frac{2}{3}$	$\frac{4}{11}$	$\frac{25}{50}$	$\frac{6}{7}$	$\frac{9}{12}$
$\frac{18}{21}$	$\frac{1}{2}$	$\frac{10}{15}$	$\frac{3}{4}$	$\frac{16}{44}$

(Note: Lines connect 2/3 to 18/21, 4/11 to 16/44, 25/50 to 1/2, 6/7 to 3/4, and 9/12 to 3/4.)

Write the missing numbers in the equations below each strip.

$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$
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2 $\frac{1}{3} = \frac{4}{12}$

3 $\frac{2}{3} = \frac{8}{12}$

$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$
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4 $\frac{1}{4} = \frac{3}{12}$

5 $\frac{3}{4} = \frac{9}{12}$

$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$
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6 $\frac{1}{6} = \frac{2}{12}$

7 $\frac{5}{6} = \frac{10}{12}$

Add these fractions using equivalent fractions.

8 $\frac{2}{3} + \frac{3}{4}$

9 $\frac{5}{6} + \frac{1}{4}$

10 $\frac{1}{6} + \frac{3}{4}$

11 $\frac{2}{3} + \frac{1}{2}$

12 $\frac{5}{6} + \frac{1}{12}$

$\frac{8}{12} + \frac{9}{12}$

$= \frac{17}{12}$

$= 1\frac{5}{12}$

$\frac{10}{12} + \frac{3}{12}$

$= \frac{13}{12}$

$= 1\frac{1}{12}$

$\frac{2}{12} + \frac{9}{12}$

$= \frac{11}{12}$

$\frac{4}{6} + \frac{3}{6}$

$= \frac{7}{6}$

$= 1\frac{1}{6}$

$\frac{10}{12} + \frac{1}{12}$

$= \frac{11}{12}$

Think about it

Sam used this method for adding fractions:

$$\frac{5}{6} + \frac{3}{4} =$$

3	5	6	(18) + (20) = 38 (this is the numerator)
4	4 × 5 = (20)	4 × 6 = (24)	$\frac{5}{6} + \frac{3}{4} = \frac{38}{24}$ (24 is the denominator)

$$\frac{38}{24} = 1\frac{14}{24} = 1\frac{7}{12}$$

Can you see how this works?

13 Choose one of the additions you did before and try it out...

$$\frac{2}{3} + \frac{3}{4} = \frac{17}{12} = 1\frac{5}{12} \quad \frac{5}{6} + \frac{1}{4} = \frac{26}{24} = 1\frac{2}{24} = 1\frac{1}{12} \quad \frac{1}{6} + \frac{3}{4} = \frac{22}{24} = \frac{11}{12} \quad \frac{2}{3} + \frac{1}{2} = \frac{7}{6} = 1\frac{1}{6} \quad \frac{5}{6} + \frac{1}{12} = \frac{66}{72} = \frac{11}{12}$$

Check method, e.g. $\frac{2}{3} + \frac{3}{4}$

3	2	3	9 + 8 = 17
4	4 × 2 = 8	4 × 3 = 12	$\frac{2}{3} + \frac{3}{4} = \frac{17}{12}$ $= 1\frac{5}{12}$

Now try it on these two or use another method.

14 $\frac{1}{3} + \frac{6}{7} = 1\frac{4}{21}$

15 $\frac{3}{5} + \frac{5}{6} = 1\frac{13}{30}$

16 Can you explain how the hash tag method for adding fractions works?

The hash tag method helps you find equivalent fractions so
that you can work out the sum. The number in the bottom right
hand corner is the highest common denominator. You get the
numerator by adding the two other numbers. You can then
simplify the fraction and find the answer.

(Accept answers along these lines.)

I found this:

