

- 1) BEDMAS: $2 + 4 \times 3$ $2 + 12$
- 2) $97 - 11 = 86$
- 3) $\frac{1}{2}$ Of 45 = $22\frac{1}{2}$ 22.5 ¹⁴
- 4) $900 \div 10 = 90$
- 5) $75 \div 5 = 15$
- 6) $123 \times 10 = 1230$
- 7) $90 \times 2 = 186$
- 8) $6 \times 25 = 150$
- 9) $5005 \div 5 = 1001$
- 10) $275 \div 25 = 11$



Use models.

1. Find equivalent fractions with like denominators for each pair of fractions.

a) $\frac{1}{2}$ and $\frac{5}{8}$



$$\frac{4}{8} = \frac{5}{8}$$

b) $\frac{1}{4}$ and $\frac{1}{3}$

$$12$$

c) $\frac{2}{3}$ and $\frac{1}{6}$

$$\frac{4}{6}$$

d) $\frac{3}{5}$ and $\frac{1}{2}$

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

$$\frac{1 \times 2}{2 \times 2}$$

2. Is each difference less than $\frac{1}{2}$ or greater than $\frac{1}{2}$?

How can you tell?

a) $\frac{5}{6} - \frac{1}{2}$ less

b) $\frac{7}{8} - \frac{1}{8} = \frac{6}{8}$

c) $\frac{4}{6} - \frac{1}{3}$

d) $\frac{1}{6} - \frac{5}{6}$
Less

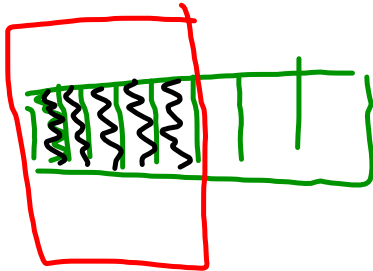
$\frac{4}{9}$

$\frac{2}{10}$

$\frac{1}{8}$

$\frac{2}{9}$

$\frac{5}{8}$



$1 - \frac{4}{7}$

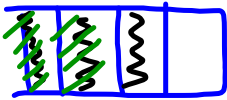
$\frac{4}{5}$

$\frac{1}{9} - \frac{3}{9}$

$1 - \frac{2}{3}$

3. Subtract. Sketch pictures to show each difference.

a) $\frac{3}{4} - \frac{2}{4} = \frac{1}{4}$



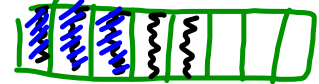
b) $\frac{4}{5} - \frac{1}{5} = \frac{3}{5}$



c) $\frac{2}{3} - \frac{1}{3} = \frac{1}{3}$



d) $\frac{5}{8} - \frac{3}{8} = \frac{2}{8} \div 2 = \frac{1}{4}$



6. Subtract. Sketch pictures to show each difference.

a) $\frac{3}{8} - \frac{1}{2}$ ^{$\times 2$}

b) $\frac{7}{10} - \frac{1}{2}$

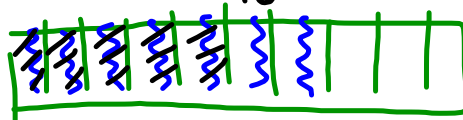
c) $\frac{7}{8} - \frac{1}{2}$

d) $\frac{5}{6} - \frac{1}{4}$

a) $\frac{3}{8} - \frac{2}{8} = \frac{1}{8}$

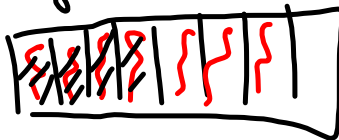


b) $\frac{7}{10} - \frac{1}{2} = \frac{2}{10} \div 2 = \frac{1}{5}$ ^{$\times 5$} _{$\times 5$}



c) $\frac{7}{8} - \frac{1}{2} = \frac{3}{8}$ ^{$\times 4$} _{$\times 4$}

$\frac{7}{8} - \frac{4}{8}$



7. Sergio has the lead role in the school play. He still has to memorize $\frac{1}{2}$ of his lines. Suppose Sergio memorizes $\frac{1}{3}$ of his lines today. What fraction of his lines will he have left to memorize? Show your work.

$$\frac{1 \times 3}{2} - \frac{1}{3} \times 2$$
$$\frac{3}{2} - \frac{2}{3} = \frac{1}{6}$$

He has to memorize $\frac{1}{6}$ more lines.

- 8.** Freida has $\frac{3}{4}$ of a bottle of ginger ale.
She needs $\frac{1}{2}$ of a bottle of ginger ale for her fruit punch.
How much will be left in the bottle after Freida makes the punch?

9. A cookie recipe calls for $\frac{3}{4}$ cup of chocolate chips.
Spencer has $\frac{2}{3}$ cup. Does he have enough?
If your answer is yes, explain why it is enough.
If your answer is no, how much more does Spencer need?

$$\frac{3}{4 \times 3} - \frac{2}{3 \times 4}$$

$$\frac{9}{12} - \frac{8}{12} = \frac{1}{12}$$

10. Copy and replace each \square with a digit, to make each equation true.

Try to do this more than one way.

a) $\frac{2}{3} - \frac{\square}{\square} = \frac{1}{3}$
 1
 3

b) $\frac{\square}{\square} - \frac{1}{5} = \frac{3}{5}$
 4
 5

c) $\frac{\square}{3} - \frac{2}{\square} = \frac{1}{6}$
 3
 6

~~$\frac{4}{3} - \frac{2}{6} = \frac{1}{6}$~~

$\frac{8}{6} - \frac{2}{6} = \frac{1}{6}$

$\frac{1}{3 \times 4} - \frac{2}{\square} = \frac{1}{6}$

$\frac{4}{12} - \frac{2}{12} = \frac{2 \div 2}{12 \div 2} = \frac{1}{6}$

$\frac{2 \times 4}{3 \times 4} - \frac{2^3}{4 \times} = \frac{8 - 6}{12} = \frac{2 \div 2}{12 \div 2} = \frac{1}{6}$

Use equivalent fractions to subtract.

Write $\frac{4}{5}$ and $\frac{1}{3}$ with a common denominator.

List the multiples of 5: 5, 10, **15**, 20, 25, ...

List the multiples of 3: 3, 6, 9, 12, **15**, 18, ...

15 is a multiple of 5 and 3, so 15 is a common denominator.

$\frac{4}{5} = \frac{12}{15}$ and $\frac{1}{3} = \frac{5}{15}$

$$\begin{aligned}\frac{4}{5} - \frac{1}{3} &= \frac{12}{15} - \frac{5}{15} \\ &= \frac{7}{15}\end{aligned}$$

Think: 12 fifteenths minus 5 fifteenths is 7 fifteenths.

Subtract.

a) $\frac{9}{10} - \frac{2}{5}$

b) $\frac{5}{4} - \frac{1}{5}$

Estimate to check the answer is reasonable.

Write all differences in simplest form.

1. Subtract.

a) $\frac{4}{5} - \frac{2}{5} = \frac{2}{5}$

b) $\frac{2}{3} - \frac{1}{3} = \frac{1}{3}$

c) $\frac{7}{9} - \frac{4}{9} = \frac{3}{9} = \frac{1}{3}$ d) $\frac{5}{7} - \frac{3}{7} = \frac{2}{7}$

2. Estimate, then subtract.

a) $\frac{2}{8} - \frac{1}{6}$

b) $\frac{5}{8} - \frac{1}{2}$

c) $\frac{3}{2} - \frac{7}{10}$

d) $\frac{11}{12} - \frac{5}{6}$

3. Subtract.

a) $\frac{3}{4} - \frac{2}{3}$

b) $\frac{4}{5} - \frac{2}{3}$

c) $\frac{7}{4} - \frac{4}{5}$

d) $\frac{3}{5} - \frac{1}{2}$

4. Subtract.

Estimate to check the answer is reasonable.

a) $\frac{4}{6} - \frac{1}{2}$

b) $\frac{5}{3} - \frac{3}{4}$

c) $\frac{7}{5} - \frac{5}{6}$

d) $\frac{5}{6} - \frac{3}{4}$

5. A recipe calls for $\frac{3}{4}$ cup of walnuts and $\frac{1}{3}$ cup of pecans.

Which type of nut is used more in the recipe?

How much more?

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

$$\frac{10}{12} - \frac{9}{12} = \frac{1}{12}$$

6. **Assessment Focus** On Saturday, Terri biked for $\frac{5}{6}$ h.
On Sunday, Terri increased the time she biked by $\frac{7}{12}$ h.
On Saturday, Bastien biked for $\frac{1}{2}$ h.
On Sunday, Bastien increased the time he biked by $\frac{3}{4}$ h.
- Who biked longer on Sunday?
How can you tell?
 - For how much longer did this person bike?
 - What did you need to know about fractions to answer these questions?
7. Write as many different subtraction questions as you can where the answer is $\frac{3}{4}$.
Show your work.
8. The difference of 2 fractions is $\frac{1}{2}$.
The lesser fraction is between 0 and $\frac{1}{4}$.
What do you know about the other fraction?

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Ques. 1-8

