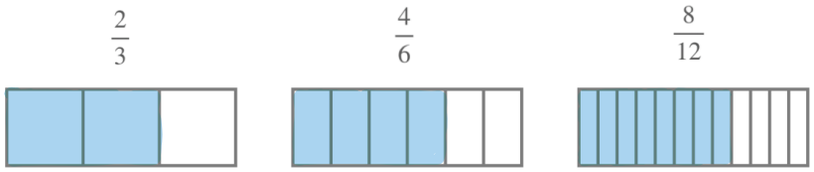
Fractions Worksheet

Mixed Operations

*Download Detailed **Answer Key** by Scanning the **QR Code** with your phone, or tablet, or by clicking **here**.*

Exercise 1

Color the following fractions on the shape:



Compare the three areas you colored. What do you notice? The three areas are equal.
Circle the correct statement "true" or "false":

- $\frac{2}{3} = \frac{4}{6}$: (True) / False since : $\frac{2}{3} \overset{\times 2}{=} \frac{4}{6}$
- $\frac{4}{6} = \frac{8}{12}$: (True) / False since : $\frac{4}{6} \overset{\times 2}{=} \frac{8}{12}$
- $\frac{4}{6} = \frac{1}{3}$: True / (False) since : $\frac{4}{6} \overset{\times 2}{=} \frac{1}{3}$ $4 \neq 2$
- $\frac{2}{3} = \frac{8}{12}$: (True) / False since : $\frac{2}{3} \overset{\times 4}{=} \frac{8}{12}$

Exercise 2 (detailed solution / working next page)

Calculate each of the following:

1. $\frac{1}{3} + \frac{4}{15} = \frac{9}{15}$
2. $\frac{4}{7} - \frac{2}{5} = \frac{6}{35}$
3. $1 + \frac{3}{5} = \frac{8}{5}$
4. $1 - \frac{3}{8} = \frac{5}{8}$
5. $\frac{5}{9} - \frac{1}{6} = \frac{7}{18}$
6. $\frac{2}{25} + \frac{3}{10} = \frac{19}{50}$

Exercise 3 (detailed solution / working next page)

Calculate:

1. $\frac{1}{3}$ of $120 = 40$
2. $\frac{3}{4}$ of $20 = 15$
3. $\frac{2}{5}$ of $35 = 14$
4. $\frac{3}{7}$ of $35 = 15$
5. $\frac{4}{9}$ of $36 = 16$
6. $\frac{5}{4}$ of $64 = 80$

Exercise 2

1) $\frac{1}{3} + \frac{4}{15}$

look for least common multiple of 3 and 15

3, 6, 9, 12, (15), 18, 21, ...

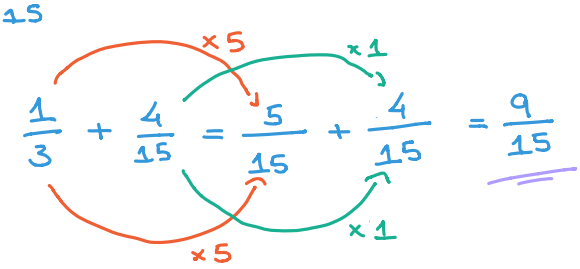
(15), 30, 45, 60, ...

LCM = 15

$3 \times 5 = 15$

$15 \times 1 = 15$

so



$$\frac{1}{3} + \frac{4}{15} = \frac{5}{15} + \frac{4}{15} = \frac{9}{15}$$

2) $\frac{4}{7} - \frac{2}{5}$

look for least common multiple of 7 and 5

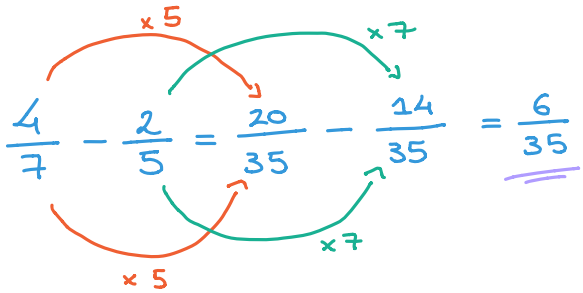
7, 14, 21, 28, (35), 42, 49, ...

5, 10, 15, 20, 25, 30, (35), 40, ...

$7 \times 5 = 35$

$5 \times 7 = 35$

so



$$\frac{4}{7} - \frac{2}{5} = \frac{20}{35} - \frac{14}{35} = \frac{6}{35}$$

3) $1 + \frac{3}{5}$

Since $1 = \frac{5}{5}$ we can write:

$$1 + \frac{3}{5} = \frac{5}{5} + \frac{3}{5} = \frac{8}{5}$$

4) $1 - \frac{3}{8}$

Since $1 = \frac{8}{8}$ we can write:

$$1 - \frac{3}{8} = \frac{8}{8} - \frac{3}{8} = \frac{5}{8}$$

5) $\frac{5}{9} - \frac{1}{6}$

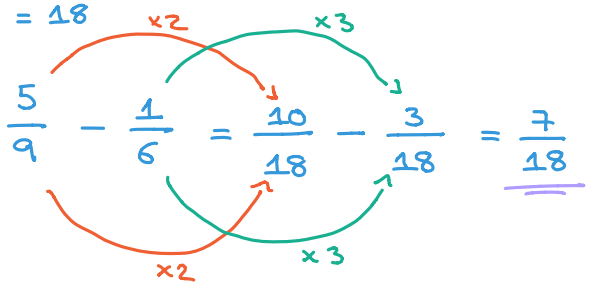
look for least common multiple of 9 and 6:

9, (18) 27, 36, 45, 54, 63, ---

6, 12, (18) 24, 30, 36, 42, ---

$9 \times 2 = 18$

$6 \times 3 = 18$



6) $\frac{2}{25} + \frac{3}{10}$

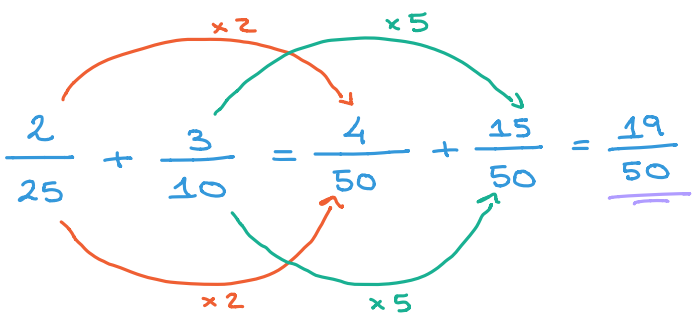
look for least common multiple of 25 and 10:

25, (50) 75, 100, 125, ---

10, 20, 30, 40, (50), 60, ---

$25 \times 2 = 50$

$10 \times 5 = 50$



Exercise 3

1) $\frac{1}{3}$ of 120

"of" = multiply

$\frac{1}{3} \times 120 = 1 \times \frac{120}{3}$] $120 \div 3 = 40$

$= 1 \times 40$

$= 40$

2) $\frac{3}{4}$ of 20

$\frac{3}{4} \times 20 = 3 \times \frac{20}{4}$] $20 \div 4 = 5$

$= 3 \times 5$

$= 15$

3) $\frac{2}{5}$ of 35

$\frac{2}{5} \times 35 = 2 \times \frac{35}{5}$] $35 \div 5 = 7$

$= 2 \times 7$

$= 14$

4) $\frac{3}{7}$ of 35

$\frac{3}{7} \times 35 = 3 \times \frac{35}{7}$] $35 \div 7 = 5$

$= 3 \times 5$

$= 15$

5) $\frac{4}{9}$ of 36

$\frac{4}{9} \times 36 = 4 \times \frac{36}{9}$] $36 \div 9 = 4$

$= 4 \times 4$

$= 16$

6) $\frac{5}{4}$ of 64

$\frac{5}{4} \times 64 = 5 \times \frac{64}{4}$] $64 \div 4 = 16$

$= 5 \times 16$

$= 80$