

FRACCIÓN: OPERACIONES

1) Calcula:

a) $\frac{1}{2} + \frac{1}{5}$

c) $\frac{5}{3} + \frac{1}{6}$

e) $\frac{1}{6} + \frac{7}{8}$

g) $\frac{3}{10} + \frac{2}{15}$

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

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

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

h) $\frac{3}{8} - \frac{1}{6}$

2) Opera e simplifica o resultado:

a) $\frac{2}{9} + \frac{5}{18}$

c) $\frac{3}{10} + \frac{8}{15}$

e) $\frac{2}{5} + \frac{7}{20}$

g) $\frac{13}{18} - \frac{1}{6}$

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

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

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

h) $\frac{5}{8} + \frac{1}{24}$

3) Calcula:

a) $\frac{1}{2} + \frac{1}{4} + \frac{1}{8}$

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

g) $\frac{1}{4} + \frac{1}{9} + \frac{1}{6}$

b) $\frac{1}{4} + \frac{1}{5} + \frac{1}{10}$

e) $\frac{7}{4} - \frac{5}{8} - \frac{2}{3}$

h) $\frac{3}{5} + \frac{5}{8} - \frac{7}{20}$

c) $1 - \frac{1}{2} - \frac{1}{5}$

f) $\frac{4}{3} + \frac{3}{2} - 2$

i) $\frac{3}{8} + \frac{5}{2} - \frac{7}{4}$

4) Calcula e simplifica:

a) $\frac{1}{2} - \frac{5}{6} + \frac{4}{5}$

f) $\frac{5}{2} - 2 + \frac{1}{10}$

b) $\frac{2}{3} + \frac{5}{6} - \frac{3}{5}$

g) $\frac{1}{4} + \frac{3}{10} - \frac{1}{20}$

c) $\frac{1}{4} + \frac{3}{10} - \frac{1}{20}$

h) $\frac{5}{6} + \frac{3}{4} - \frac{7}{12} - \frac{1}{3}$

d) $1 - \frac{3}{10} - \frac{8}{15}$

i) $\frac{1}{4} + \frac{1}{9} + \frac{1}{12} + \frac{1}{18}$

e) $1 - \frac{4}{15} - \frac{2}{5}$

l) $\frac{3}{2} + \frac{7}{10} - \frac{4}{5} + \frac{1}{20}$

5) Resolve:

a) $\frac{3}{4} - \frac{7}{10} + \frac{3}{5} - \frac{13}{20}$

d) $\frac{1}{5} + 2 - \frac{4}{3}$

b) $\frac{3}{4} + 1 - \frac{1}{3} - \frac{5}{9}$

e) $\frac{5}{8} - \frac{2}{6} + \frac{3}{4} - \frac{1}{3}$

c) $\frac{1}{2} - \frac{2}{5} + \frac{3}{4} - \frac{7}{10} + \frac{7}{20}$

f) $\frac{5}{9} + \frac{1}{4} + \frac{7}{12} - \frac{5}{6}$

6) Opera:

a) $2 - \frac{3}{2} + \frac{1}{6}$

b) $\frac{2}{5} + \frac{7}{10} + \frac{11}{5}$

c) $\frac{8}{5} - 1 + \frac{13}{15}$

d) $\frac{3}{4} + \frac{7}{5} + \frac{3}{10}$

7) Calcula:

a) $\frac{8}{5} - \left(\frac{17}{10} - \frac{3}{2}\right)$

b) $\frac{3}{7} - \left(\frac{5}{21} + \frac{1}{14}\right)$

c) $\frac{7}{4} - \left(\frac{5}{2} - \frac{1}{6} - \frac{7}{8}\right)$

8) Calcula:

a) $\frac{5}{4} - \left(\frac{1}{2} + \frac{3}{8}\right)$

b) $\frac{3}{5} - \left(1 - \frac{7}{10}\right)$

c) $\left(\frac{1}{2} + \frac{1}{3}\right) - \left(\frac{1}{2} - \frac{1}{3}\right)$

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

e) $\left(1 - \frac{1}{3}\right) - \left(\frac{1}{2} - \frac{1}{5}\right)$

f) $\left(\frac{1}{2} + \frac{5}{6}\right) - \left(\frac{1}{4} + \frac{2}{3}\right)$

9) Resolve:

a) $\left(\frac{3}{5} + \frac{1}{4}\right) - \left(\frac{3}{2} - \frac{7}{5}\right)$

b) $\left(3 - \frac{5}{3}\right) - \left(2 - \frac{7}{5}\right)$

c) $\left(3 - \frac{1}{3}\right) - \left(2 + \frac{3}{5}\right)$

d) $\left(\frac{9}{10} - \frac{2}{5}\right) + \left(\frac{3}{4} - \frac{1}{5}\right)$

e) $\left(\frac{3}{5} - \frac{1}{6} + \frac{2}{3}\right) + \frac{3}{10}$

f) $\left(\frac{7}{4} + \frac{3}{5}\right) - \left(3 - \frac{2}{3}\right)$

10) Opera:

a) $\frac{1}{4} + \left(\frac{4}{5} - \frac{1}{6}\right) + \left(\frac{5}{12} - \frac{3}{10}\right)$

b) $\frac{2}{5} + \left(1 - \frac{3}{4}\right) + \left(1 - \frac{3}{10}\right)$

c) $1 - \left(\frac{1}{2} + \frac{1}{3} - \frac{1}{4}\right)$

d) $\frac{3}{4} - \left[1 - \left(\frac{1}{3} + \frac{1}{4}\right)\right]$

11) Opera:

a) $4 \cdot \frac{1}{8}$

b) $\frac{4}{3} \cdot 9$

c) $\frac{2}{5} \cdot \frac{5}{6}$

d) $\frac{1}{3} \cdot \frac{6}{5}$

e) $3 \cdot \frac{2}{15}$

f) $\frac{4}{15} \cdot \frac{5}{8}$

g) $\frac{8}{9} \cdot \frac{9}{8}$

h) $\frac{12}{5} \cdot \frac{7}{12}$

i) $\frac{5}{6} \cdot 12$

l) $\frac{10}{7} \cdot \frac{7}{15}$

m) $\frac{4}{9} \cdot 3$

n) $\frac{7}{15} \cdot \frac{5}{14}$

ñ) $\frac{2}{7} \cdot \frac{21}{10}$

o) $\frac{13}{4} \cdot \frac{8}{26}$

p) $\frac{15}{3} \cdot \frac{4}{20}$

q) $\frac{20}{12} \cdot \frac{4}{5}$

12) Multiplica:

a) $\frac{1}{2} \cdot \frac{1}{3} \cdot \frac{1}{4}$

b) $\frac{2}{3} \cdot \frac{1}{5} \cdot 6$

c) $\frac{2}{5} \cdot \frac{3}{4} \cdot 2$

d) $3 \cdot \frac{4}{6} \cdot \frac{2}{3}$

e) $\frac{1}{3} \cdot 4 \cdot \frac{5}{4}$

f) $\frac{5}{6} \cdot \frac{9}{2} \cdot \frac{4}{3} \cdot 2$

g) $6 \cdot \frac{1}{8} \cdot \frac{3}{2}$

h) $\frac{10}{3} \cdot \frac{3}{5} \cdot \frac{1}{2}$

i) $\frac{15}{8} \cdot \frac{2}{3}$

l) $\frac{12}{5} \cdot \frac{5}{18}$

m) $\frac{3}{4} \cdot \frac{10}{15} \cdot \frac{4}{3}$

n) $\frac{2}{5} \cdot \frac{3}{4} \cdot \frac{5}{2}$

13) Divide:

a) $\frac{1}{2} : \frac{1}{5}$

b) $\frac{1}{5} : \frac{1}{2}$

c) $\frac{2}{7} : \frac{3}{4}$

d) $\frac{3}{7} : \frac{5}{2}$

e) $\frac{2}{11} : \frac{1}{5}$

f) $5 : \frac{1}{2}$

g) $7 : \frac{14}{3}$

h) $5 : \frac{10}{3}$

i) $\frac{4}{9} : \frac{3}{3}$

l) $\frac{7}{4} : \frac{5}{3}$

m) $\frac{3}{7} : \frac{4}{6}$

n) $\frac{8}{5} : \frac{4}{5}$

14) Opera:

a) $\frac{1}{2} : \frac{1}{4}$

b) $\frac{1}{4} : \frac{1}{2}$

c) $\frac{4}{3} : \frac{1}{3}$

d) $\frac{2}{5} : \frac{4}{10}$

e) $\frac{3}{2} : \frac{5}{6}$

f) $\frac{5}{9} : \frac{5}{12}$

15) Resolve:

a) $\frac{\frac{1}{2}}{\frac{4}{7}} =$ b) $\frac{20}{\frac{5}{2}} =$ c) $\frac{\frac{6}{4}}{5} =$ d) $\frac{\frac{\frac{6}{3}}{\frac{2}{2}}}{\frac{\frac{4}{3}}{5}} =$

16) Opera:

a) $\frac{\frac{10}{\frac{5}{6}}}{\frac{4}{3}} =$ b) $\frac{\frac{\frac{1}{2}}{\frac{3}{4}}}{\frac{7}{2}} =$ c) $\frac{\frac{3}{\frac{4}{3}}}{\frac{4}{5}} =$

17) Resolve:

a) $\frac{\frac{\frac{3}{2}}{5}}{\frac{3}{5} \cdot \frac{1}{2}} =$ b) $\frac{\frac{6}{4} : \frac{2}{3}}{\frac{3}{4} \cdot \frac{5}{2}} =$ c) $\frac{\frac{4}{8} + \frac{3}{2}}{\frac{1}{2} : \frac{5}{3}} =$ d) $\frac{\frac{\frac{4}{3}}{2}}{\frac{1}{2} \cdot \frac{4}{3}} =$

18) Opera:

$$a) \frac{\frac{\frac{4}{5}}{3}}{\frac{\frac{2}{3}}{\frac{\frac{3}{2} + \frac{1}{4}}{4}}} =$$

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

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

$$d) \frac{\frac{3}{2} - \left(\frac{1}{4} + \frac{2}{5}\right)}{\frac{\frac{4}{3}}{\frac{\frac{6}{5} - \frac{5}{8}}{4}}} =$$

19) Calcola:

$$a) \frac{3}{4} : \left(\frac{1}{2} \cdot \frac{3}{5}\right)$$

$$c) \left(\frac{2}{7} : \frac{3}{7}\right) \cdot \frac{1}{2}$$

$$e) \frac{2}{5} : \left(\frac{3}{5} : \frac{1}{2}\right)$$

$$b) \left(\frac{3}{4} : \frac{1}{2}\right) \cdot \frac{3}{5}$$

$$d) \frac{2}{7} : \left(\frac{3}{7} \cdot \frac{1}{2}\right)$$

$$f) \left(\frac{2}{5} : \frac{3}{5}\right) : \frac{1}{2}$$

20) Resolve:

$$a) \frac{1}{5} \cdot \left(\frac{1}{2} + \frac{1}{3}\right)$$

$$c) 2 \cdot \left(\frac{4}{3} - \frac{5}{6}\right)$$

$$e) \frac{3}{4} \cdot \left(\frac{1}{3} - \frac{1}{9}\right)$$

$$b) \frac{1}{4} : \left(\frac{1}{2} - \frac{1}{4}\right)$$

$$d) \frac{1}{10} : \left(\frac{2}{3} - \frac{3}{5}\right)$$

$$f) \frac{7}{9} : \left(\frac{1}{6} + \frac{2}{9}\right)$$

21) Calcola:

$$a) \left(\frac{2}{5} + \frac{1}{3}\right) : \left(\frac{1}{2} + \frac{3}{5}\right)$$

$$d) \left(\frac{3}{2} - 1\right) : \left(\frac{4}{3} - 1\right)$$

$$b) \left(1 - \frac{1}{5}\right) : \left(1 + \frac{1}{5}\right)$$

$$e) \left(1 + \frac{1}{8}\right) \cdot \left(2 - \frac{16}{9}\right)$$

$$c) \left(1 - \frac{2}{5}\right) \cdot \left(\frac{2}{3} - \frac{1}{2}\right)$$

$$f) \left(\frac{3}{4} - \frac{2}{3}\right) \cdot \left(2 - \frac{2}{7}\right)$$

22) Calcola:

$$a) \left(\frac{1}{2} - \frac{1}{3}\right) : \left(1 - \frac{5}{6}\right)$$

$$b) \left(\frac{4}{3} - \frac{2}{5}\right) : \left(\frac{4}{5} - \frac{1}{2}\right)$$

$$c) \left(\frac{2}{3} - \frac{1}{2}\right) : \left(\frac{1}{3} - \frac{1}{5}\right)$$

23) Resolve:

$$a) \frac{1}{3} - \frac{3}{2} \cdot \left(\frac{1}{3} - \frac{1}{6}\right)$$

$$b) 1 - \frac{1}{3} \cdot \left(\frac{1}{2} - \frac{1}{6}\right)$$

$$c) \frac{9}{10} + \frac{2}{5} : \left(\frac{1}{2} - \frac{1}{6}\right)$$

24) Calcola:

$$a) \frac{2}{3} + 2 \cdot \left(\frac{5}{2} + \frac{1}{6}\right)$$

$$b) \frac{1}{6} - \frac{5}{3} \cdot \left(\frac{1}{2} - \frac{2}{5}\right)$$

$$c) 2 - \frac{5}{6} : \left(\frac{1}{2} + \frac{1}{3}\right)$$

25) Resolve:

$$a) \frac{2 : \frac{8}{4} + \frac{2}{8}}{5 - 4 + \frac{2}{3}}$$

$$b) \frac{\frac{4}{5} \cdot \frac{1}{3} - \frac{1}{5}}{\frac{6}{4} : \frac{4}{3} - \frac{5}{6}}$$

$$c) \frac{\frac{4}{3} \cdot \frac{1}{2} - \frac{7}{4}}{\frac{1}{3} \cdot 2 - \frac{5}{10}}$$

26) Calcula:

$$a) 3 \cdot \left(\frac{1}{6} + \frac{2}{5} \right) - \left(\frac{5}{6} - \frac{1}{4} \right)$$

$$c) \left(\frac{4}{3} - \frac{2}{5} \right) \cdot \frac{5}{4} + \frac{1}{5}$$

$$b) \left(\frac{2}{3} + \frac{5}{2} + \frac{1}{6} \right) : \left(2 + \frac{1}{2} + 3 \right)$$

$$d) \left(1 - \frac{2}{3} \right) : \left(1 - \frac{3}{4} \right)$$

27) Resolve:

$$a) \frac{2}{5} \cdot \frac{3}{2} - \frac{1}{4} : \frac{3}{5} + \frac{3}{20}$$

$$c) \frac{3}{4} \cdot \left[\frac{7}{3} - 3 \cdot \left(1 - \frac{1}{3} \right) \right]$$

$$b) \frac{1}{5} : \left[\frac{2}{3} - 2 \cdot \left(1 - \frac{7}{10} \right) \right]$$

$$d) \frac{3}{2} \cdot \left[\left(\frac{3}{4} - \frac{2}{3} \right) + \left(\frac{4}{3} - \frac{1}{2} \right) \right]$$

28) Fai as operaci3ns:

$$a) \frac{3 + \frac{1}{2} + \frac{1}{6} - \frac{11}{8}}{5}$$

$$b) \frac{\frac{1}{3} + \left(\frac{4}{5} - \frac{3}{10} \right)}{\frac{1}{2} + \frac{3}{8} - \frac{5}{12}}$$

$$c) \frac{\left(4 + \frac{1}{3} \right) \cdot \frac{4}{5}}{4 \cdot \left(\frac{1}{4} - \frac{2}{9} \right)}$$

29) Calcula:

$$a) \frac{5 \cdot \frac{3}{10} - \frac{6}{5}}{\frac{1}{5} - \frac{2}{15} + \frac{3}{10}}$$

$$b) \frac{\frac{1}{4} + \frac{5}{2} : 3}{4 : \frac{3}{2} - \frac{9}{5}}$$

$$c) \frac{\frac{4}{5} : \frac{1}{2} - \frac{3}{4} \cdot \frac{3}{2}}{\frac{7}{3} - \left(\frac{4}{7} + \frac{1}{3} \cdot \frac{5}{2} \right)}$$

30) Resolve:

$$a) \frac{2}{5} \text{ de } 15$$

$$d) \frac{4}{5} \text{ de } 30$$

$$g) \frac{1}{4} \text{ de } 384$$

$$b) \frac{3}{4} \text{ de } 12$$

$$e) \frac{3}{4} \text{ de } 48$$

$$h) \frac{3}{5} \text{ de } 715$$

$$c) \frac{3}{7} \text{ de } 21$$

$$f) \frac{2}{3} \text{ de } 72$$

$$i) \frac{5}{7} \text{ de } 483$$

31) Calcula:

$$a) \frac{3}{4} \text{ de } 332$$

$$d) \frac{4}{5} \text{ de } 375$$

$$g) \frac{6}{11} \text{ de } 1430$$

$$b) \frac{2}{3} \text{ de } 192$$

$$e) \frac{4}{9} \text{ de } 153$$

$$h) \frac{7}{12} \text{ de } 219$$

$$c) \frac{3}{7} \text{ de } 749$$

$$f) \frac{5}{8} \text{ de } 1096$$

$$i) \frac{4}{15} \text{ de } 4215$$