

common denominator

Which is bigger?



$$\begin{array}{r} 0.625 \\ 8 \overline{) 5.000} \\ \underline{48} \\ 20 \\ \underline{16} \\ 40 \\ \underline{40} \\ 0 \end{array}$$

$$\frac{6}{8} = \frac{2}{2} \times \frac{3}{4} \text{ or } \frac{5}{8} \times \frac{2}{2} = \frac{10}{16}$$

$$\frac{6}{8} = \frac{12}{16} \text{ or } \frac{5}{8} \times \frac{2}{2} = \frac{10}{16}$$

$$2. \frac{3}{8} \text{ or } 38.0\%$$

$$4. 62.4\% \text{ or } \frac{5}{8}$$

$$\begin{array}{r} .375 \\ 0.375 \end{array} \quad \begin{array}{r} 380 \\ 380 \end{array}$$

$$\begin{array}{r} 8 \overline{) 3.4} \\ \underline{24} \\ 10 \\ \underline{8} \\ 20 \\ \underline{16} \\ 40 \\ \underline{40} \\ 0 \end{array}$$

$$\frac{62.4}{100} = .624$$

process: common denominator
add numerators

Compute: keep denominator
reduce

$$\frac{8-3}{18} = \frac{5}{18}$$

$$\frac{4}{8} = \frac{4}{4 \times 2} \cdot \frac{1}{2} + \frac{3}{8} = \frac{4+3}{8} = \frac{7}{8}$$

$$\frac{8}{18} = \frac{8}{2 \cdot 9} \cdot \frac{2}{2} + \frac{1}{6} \cdot \frac{3}{3} = \frac{8+3}{18} = \frac{11}{18}$$

$$\frac{20}{24} = \frac{20}{4 \cdot 6} \cdot \frac{5}{5} - \frac{7}{8} \cdot \frac{3}{3} = \frac{20-21}{24} = -\frac{1}{24}$$

$$\frac{8 \times 5}{8 \times 6} - \frac{7 \times 6}{8 \times 6} = \frac{40-42}{48} = -\frac{2}{48}$$

$$8 \cdot 2 = 16$$

$$8 \cdot 3 = 24$$

$$= -\frac{1}{24}$$

$$\frac{36}{21} = \frac{3 \times 12}{3 \times 7} - \frac{5 \times 7}{3 \times 7} = \frac{36-35}{21} = \frac{1}{21}$$

Multiply: multiply num, den; simplify

whole $\rightarrow 1 \rightarrow 100\%$

$$7. \frac{3}{4} \times \frac{5}{6} = \frac{3 \times 5}{4 \times 6} = \frac{15}{24} = \frac{5}{8}$$

$$\frac{1}{2} \times \frac{5}{8} = \frac{5}{16}$$

$$8. \frac{5}{4} \times \frac{7}{5} = \frac{5 \times 7}{4 \times 5} = \frac{35}{20} = \frac{7}{4}$$

$$9. \frac{73}{100} - \frac{13}{25} \xrightarrow{\times 4} \frac{73 - 52}{100} = \frac{21}{100}$$

$$14. 2\frac{1}{4} - 1\frac{3}{16} =$$

$$15. 80\% \text{ of } \$20.00$$

$$.8 \times \$20 = \$16.0$$

$$16. 30\% \text{ of } \$120.00 =$$

$$100\% - 30\% = 70\% = .7$$

$$\frac{5}{4} \times \frac{7}{5} = \frac{5 \times 7}{4 \times 5} = \frac{5 \times 7}{4 \times 4} = \frac{7}{4}$$

$$30\% \times \$120 = 36$$

$$\frac{3 \times 7}{1 \times 4} = \frac{21}{4}$$

$$120 - 36 = 84$$

division \rightarrow multiply by reciprocal

--- $\frac{a}{b} \leftrightarrow \text{reciprocal} \leftrightarrow \frac{b}{a}$

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

division
11. $\frac{3}{4} \div \frac{7}{16} =$

$$\frac{3}{4} \times \frac{8}{5} = \frac{5}{8} \times \frac{8}{5}$$

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

$$\frac{8/4}{4/4} = \boxed{\frac{2}{1}}$$

17. $\frac{15}{16} \times \frac{3}{5} =$

18. $\frac{4}{5} \div \frac{5}{6} = \frac{4 \times 6}{5 \times 5} = \frac{24}{25}$

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

19. If you eat $\frac{2}{5}$ of a pizza before your friend eats another $\frac{1}{3}$ of ^{it} what is left, how much of the pizza is left?



2 slices

$\frac{2}{5}$ PIZZA

20. A recipe calls for $\frac{3}{4}$ cup of sugar, but you accidentally added only half of that amount.
How much sugar did you add?