

Fractions

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Worked example

Write in ascending order:

$$\frac{2}{5}, \frac{5}{12}, \frac{1}{4}, \frac{7}{15}$$

Your turn

Write in ascending order:

$$\frac{1}{2}, \frac{5}{3}, \frac{13}{15}, \frac{3}{10}$$
$$\frac{3}{10}, \frac{1}{2}, \frac{13}{15}, \frac{5}{3}$$

Worked example

Simplify:

$$\frac{5}{15}$$

$$\frac{75}{135}$$

Your turn

Simplify

$$\frac{81}{108}$$

$$\frac{3}{4}$$

Worked example

Simplify:

$$\frac{144}{324}$$

$$\frac{123}{456}$$

Your turn

Simplify

$$\frac{184}{276}$$

$$\frac{2}{3}$$

Worked example

Find A

$$\frac{3}{7} = \frac{A}{28}$$

$$\frac{25}{A} = \frac{5}{4}$$

Your turn

Simplify

$$\frac{2}{3} = \frac{24}{A}$$

36

Worked example

Find A

$$\frac{3}{21} = \frac{A}{14}$$

$$\frac{25}{A} = \frac{15}{12}$$

Your turn

Simplify

$$\frac{8}{12} = \frac{12}{A}$$

18

Worked example

Convert to a mixed number:

$$\frac{7}{3}$$

$$\frac{8}{5}$$

$$\frac{11}{10}$$

Your turn

Convert to a mixed number:

$$\frac{9}{7}$$

$$1\frac{2}{7}$$

Worked example

Convert to a mixed number:

$$\frac{19}{14}$$

$$\frac{29}{15}$$

$$\frac{27}{13}$$

Your turn

Convert to a mixed number:

$$\frac{25}{12}$$

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

Worked example

Convert to an improper fraction:

$$2\frac{3}{5}$$

$$3\frac{2}{5}$$

$$5\frac{2}{3}$$

Your turn

Convert to a mixed number:

$$4\frac{5}{6}$$

$$\frac{29}{6}$$

Worked example

Calculate:

$$\frac{2}{5} + \frac{2}{5}$$

$$\frac{2}{5} + \frac{3}{5}$$

$$\frac{2}{5} + \frac{4}{5}$$

Your turn

Calculate:

$$\frac{3}{7} + \frac{1}{7}$$

$$\frac{4}{7}$$

Worked example

Calculate:

$$\frac{2}{5} + \frac{3}{10}$$

$$\frac{2}{3} + \frac{5}{12}$$

Your turn

Calculate:

$$\frac{4}{3} + \frac{2}{15}$$

$$\frac{22}{15}$$

Worked example

Calculate:

$$3\frac{2}{5} + 1\frac{3}{10}$$

$$4\frac{2}{3} + 2\frac{5}{12}$$

Your turn

Calculate:

$$\frac{4}{3} + 7\frac{2}{15}$$

$$\frac{127}{15}$$

Worked example

Calculate:

$$\frac{2}{5} + \frac{3}{4}$$

$$\frac{2}{3} + \frac{5}{4}$$

Your turn

Calculate:

$$\frac{4}{3} + \frac{2}{5}$$

$$\frac{26}{15}$$

Worked example

Calculate:

$$1\frac{2}{5} + \frac{3}{4}$$

$$7\frac{2}{3} + 6\frac{4}{5}$$

Your turn

Calculate:

$$\frac{4}{3} + 8\frac{2}{5}$$

$$\frac{146}{15}$$

Worked example

Calculate:

$$\frac{2}{5} - \frac{2}{5}$$

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

$$\frac{6}{5} - \frac{2}{5}$$

Your turn

Calculate:

$$\frac{8}{7} - \frac{6}{7}$$

$$\frac{2}{7}$$

Worked example

Calculate:

$$\frac{2}{5} - \frac{3}{10}$$

$$\frac{3}{7} - \frac{2}{21}$$

Your turn

Calculate:

$$\frac{8}{3} - \frac{5}{12}$$

$$\frac{9}{4}$$

Worked example

Calculate:

$$3\frac{2}{5} - 1\frac{3}{10}$$

$$4\frac{3}{7} - 2\frac{2}{21}$$

Your turn

Calculate:

$$\frac{28}{3} - 2\frac{5}{12}$$

$$\frac{83}{12}$$

Worked example

Calculate:

$$\frac{3}{4} \times \frac{1}{5}$$

$$\frac{3}{4} \times \frac{7}{8}$$

Your turn

Calculate:

$$\frac{2}{7} \times \frac{4}{5}$$

$$\frac{8}{35}$$

Worked example

Calculate:

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

$$\frac{2}{5} \times \frac{5}{2}$$

Your turn

Calculate:

$$\frac{2}{7} \times \frac{7}{2}$$

1

Worked example

Calculate:

$$\frac{3}{4} \times \frac{4}{9}$$

$$\frac{2}{5} \times \frac{15}{26}$$

Your turn

Calculate:

$$\frac{2}{7} \times \frac{21}{20}$$

$$\frac{3}{10}$$

Worked example

Calculate:

$$2\frac{3}{4} \times 1\frac{4}{9}$$

$$3\frac{2}{5} \times 2\frac{15}{26}$$

Your turn

Calculate:

$$4\frac{2}{7} \times 3\frac{7}{20}$$

$$\frac{201}{14}$$

Worked example

Calculate:

$$\frac{3}{4} \div \frac{1}{5}$$

$$\frac{3}{4} \div \frac{7}{9}$$

Your turn

Calculate:

$$\frac{2}{7} \div \frac{3}{5}$$

$$\frac{10}{21}$$

Worked example

Calculate:

$$2\frac{3}{4} \div \frac{1}{5}$$

$$1\frac{3}{4} \div 2\frac{7}{9}$$

Your turn

Calculate:

$$4\frac{2}{7} \div 6\frac{3}{5}$$

$$\frac{50}{77}$$

Worked example

Calculate:

$$\frac{3}{4} \div 2$$

$$\frac{3}{4} \div 3$$

$$\frac{3}{4} \div 5$$

Your turn

Calculate:

$$\frac{2}{7} \div 2$$

$$\frac{1}{7}$$

$$\frac{2}{7} \div 3$$

$$\frac{2}{21}$$

Worked example

Calculate:

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

$$\frac{3}{4} \div 9$$

$$\frac{3}{4} \div 12$$

Your turn

Calculate:

$$\frac{2}{7} \div 8$$

$$\frac{1}{28}$$

Worked example

Calculate:

$$2 \div \frac{3}{4}$$

$$3 \div \frac{3}{4}$$

$$4 \div \frac{3}{4}$$

Your turn

Calculate:

$$3 \div \frac{2}{7}$$

$$\frac{21}{2}$$

Worked example

Calculate:

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

$$\frac{3}{\frac{3}{4}}$$

$$\frac{4}{\frac{3}{4}}$$

Your turn

Calculate:

$$\frac{3}{\frac{2}{7}}$$

$$\frac{21}{2}$$

Worked example

Calculate:

$$\frac{3}{4} + \frac{2}{5}$$

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

$$\frac{3}{4} \times \frac{2}{5}$$

$$\frac{3}{4} \div \frac{2}{5}$$

Your turn

Calculate:

$$\frac{4}{5} + \frac{2}{3}$$

$$\frac{22}{15}$$

$$\frac{4}{5} \times \frac{2}{3}$$

$$\frac{8}{15}$$

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

$$\frac{2}{15}$$

$$\frac{4}{5} \div \frac{2}{3}$$

$$\frac{6}{5}$$

Worked example

Write the reciprocals of:

$$3 \qquad 4$$

$$\frac{1}{3} \qquad \frac{1}{4}$$

$$\frac{3}{4} \qquad \frac{5}{2}$$

Your turn

Write the reciprocals of:

$$5$$

$$\frac{1}{5}$$

$$\frac{2}{7}$$

$$\frac{7}{2}$$

Worked example

Calculate:

$$\frac{2}{3} \text{ of } 12$$

$$\frac{3}{4} \text{ of } 12$$

$$\frac{3}{2} \text{ of } 12$$

Your turn

Calculate:

$$\frac{4}{5} \text{ of } 35$$

28

Worked example

Increase:

$$12 \text{ by } \frac{2}{3}$$

$$12 \text{ by } \frac{3}{4}$$

$$12 \text{ by } \frac{3}{2}$$

Your turn

Increase:

$$35 \text{ by } \frac{4}{5}$$

63

Worked example

Decrease

$$12 \text{ by } \frac{2}{3}$$

$$12 \text{ by } \frac{3}{4}$$

$$12 \text{ by } \frac{3}{2}$$

Your turn

Decrease

$$35 \text{ by } \frac{4}{5}$$

63

Worked example

$\frac{2}{5}$ of x is 10. What is x ?

$\frac{7}{3}$ of y is 14. What is y ?

Your turn

$\frac{3}{4}$ of x is 12. What is x ?

16

Worked example

Write as a decimal:

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

$$\frac{1}{4}$$

$$\frac{1}{5}$$

Your turn

Write as a decimal:

$$\frac{1}{10}$$

0.1

Worked example

Write as a decimal:

$$\frac{3}{4}$$

$$\frac{3}{5}$$

$$\frac{3}{8}$$

Your turn

Write as a decimal:

$$\frac{5}{8}$$

0.625

Worked example

Write as a decimal:

$$\frac{3}{4}$$

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

$$\frac{5}{4}$$

Your turn

Write as a decimal:

$$\frac{3}{2}$$

1.5