

Fractions

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This worksheet has four sections: The Addition, Subtraction, Multiplication and Division of fractions. Each set has six questions split into three difficulties. The difficulty increases where an asterisk, *, is present.

Simplify your answers as much as possible.

Q1. (a) $\frac{1}{2} + \frac{1}{2}$
(b) $\frac{2}{5} + \frac{1}{5}$
(c*) $\frac{1}{3} + \frac{1}{2}$
(d*) $\frac{3}{4} + \frac{1}{5}$
(e**) $\frac{15}{10} + \frac{3}{5}$
(f**) $\frac{2}{7} + \frac{9}{8}$

Q2. (a) $\frac{3}{4} - \frac{1}{4}$
(b) $\frac{5}{6} - \frac{1}{6}$
(c*) $\frac{5}{9} - \frac{1}{2}$
(d*) $\frac{8}{11} - \frac{1}{3}$
(e**) $\frac{1}{7} - \frac{8}{9}$
(f**) $\frac{2}{3} - \frac{7}{12}$

Q3. (a) $\frac{1}{3} \times \frac{1}{3}$

$$(b) \quad \frac{1}{4} \times \frac{2}{5}$$

$$(c^*) \quad \frac{11}{10} \times 2$$

$$(d^*) \quad \frac{5}{6} \times \frac{2}{3}$$

$$(e^{**}) \quad \frac{11}{5} \times \frac{4}{5}$$

$$(f^{**}) \quad \frac{6}{7} \times \frac{10}{13}$$

$$Q4. (a) \quad \frac{3}{4} \div \frac{1}{4}$$

$$(b) \quad \frac{1}{3} \div \frac{1}{4}$$

$$(c^*) \quad \frac{5}{7} \div \frac{5}{6}$$

$$(d^*) \quad \frac{4}{9} \div \frac{2}{3}$$

$$(e^{**}) \quad \frac{11}{12} \div \frac{10}{9}$$

$$(f^{**}) \quad \frac{8}{7} \div \frac{20}{9}$$

Answers

Q1. (a) 1
(b) $\frac{3}{5}$
(c*) $\frac{5}{6}$
(d*) $\frac{19}{20}$
(e**) $\frac{21}{10}$
(f**) $\frac{79}{56}$

Q2. (a) $\frac{1}{2}$
(b) $\frac{2}{3}$
(c*) $\frac{1}{18}$
(d*) $\frac{1}{3}$
(e**) $-\frac{47}{63}$
(f**) $\frac{1}{12}$

Q3. (a) $\frac{1}{9}$
(b) $\frac{1}{10}$
(c*) $\frac{22}{10}$

$$(d^*) \quad \frac{5}{9}$$

$$(e^{**}) \quad \frac{44}{25}$$

$$(f^{**}) \quad \frac{60}{91}$$

Q4. (a) 3

$$(b) \quad \frac{4}{3}$$

$$(c^*) \quad \frac{6}{7}$$

$$(d^*) \quad \frac{2}{3}$$

$$(e^{**}) \quad \frac{33}{40}$$

$$(f^{**}) \quad \frac{18}{35}$$