

# Master Maths 9 Worksheet 21

## Algebraic Fractions 2

# 21

*Name:* \_\_\_\_\_

**1. Simplify the following.**

(a)  $\frac{3}{5} \times \frac{2}{7}$

(b)  $\frac{4}{9} \times \frac{27}{32}$



(c)  $\frac{6x}{21} \times \frac{7x}{12}$

(d)  $\frac{3x}{5} \times \frac{10}{x}$



(e)  $\frac{x+2}{8} \times \frac{4}{x+2}$

(f)  $\frac{3}{x-1} \times \frac{x-1}{5}$



**2. Simplify the following.**

(a)  $\frac{1}{2} \div \frac{1}{4}$

(b)  $\frac{4}{5} \div \frac{1}{10}$



(c)  $\frac{x}{5} \div \frac{x}{2}$

(d)  $\frac{3x}{4} \div \frac{3x}{10}$



(e)  $\frac{4a}{7} \div \frac{8a}{21}$

(f)  $\frac{x+1}{6} \div \frac{x+1}{3}$



**3. Factorise where possible and then simplify.**

(a)  $\frac{2x+8}{15} \times \frac{10}{3x+12}$

(b)  $\frac{m+1}{3} \times \frac{m-2}{5} \times \frac{15}{2m+2}$

(c)  $\frac{3(e-2)}{2e} \times \frac{10e}{9e-18}$

(d)  $\frac{c^2-12c}{3c} \times \frac{2}{c-12}$

(e)  $\frac{y^2-4}{y-2} \times \frac{6}{7y+14}$

(f)  $\frac{2x+8}{x^2-16} \times \frac{3x}{8}$

(g)  $\frac{5n}{n+3} \div \frac{15n}{2n+6}$

(h)  $\frac{6n^2}{n^2-25} \div \frac{3n}{n+5} \div \frac{5n}{2n-10}$