

## Algebraic Fractions - Multiplying and Dividing

Question 1.  $\frac{2}{x} \times \frac{3}{x}$

[3 marks]

---

Question 2.  $\frac{5a}{6} \times \frac{3}{2a}$

[3 marks]

---

Question 3.  $\frac{4x}{5} \times \frac{10}{x}$

[3 marks]

---

Question 4.  $\frac{x+1}{2} \times \frac{3}{x+1}$

[3 marks]

---

Question 5.  $\frac{2a+3}{4} \times \frac{8}{2a+3}$

[3 marks]

---

Question 6.  $\frac{3}{x} \div \frac{6}{x}$

[3 marks]

---

Question 7.  $\frac{x^2}{5x} \div \frac{x}{10}$

[3 marks]

---

Question 8.  $\frac{4}{a+2} \div \frac{2}{a+2}$

[3 marks]

---

Question 9.  $\frac{3a}{4} \div \frac{6}{a}$

[3 marks]

---

**Question 10.**  $\frac{x+4}{x} \div \frac{x+4}{2x}$

[3 marks]

---

**Question 11.**  $\frac{x^2-4}{x+2} \times \frac{x+2}{x-2}$

[3 marks]

---

**Question 12.**  $\frac{x^2-9}{x^2-1} \times \frac{x-1}{x-3}$

[3 marks]

---

Question 13.  $\frac{x^2+5x+6}{x+3} \div \frac{x+2}{x}$

[3 marks]

---

Question 14.  $\frac{x^2-9x+20}{x^2-4} \times \frac{x-2}{x-4}$

[3 marks]

---

Question 15.  $\frac{x^2-4x}{x^2-x-6} \div \frac{x-2}{x}$

[3 marks]

---

**Question 16.** Simplify:  $\frac{2x}{x^2-1} \times \frac{x+1}{3x}$

[3 marks]

---

**Question 17.** Simplify and state any restrictions on  $x$ :  $\frac{x^2-1}{x^2+x} \div \frac{x-1}{x}$

[3 marks]

---

**Question 18.** A rectangle has length  $\frac{2x}{x+1}$  and width  $\frac{x-1}{x}$ . Find the area in its simplest form.

[3 marks]

---

**Question 19.** Simplify:  $\frac{a+b}{a} \div \frac{b+a}{a+b}$

[3 marks]

---

**Question 20.** If  $A = \frac{2x}{x+1}$ , and  $B = \frac{3x+3}{x}$ , simplify  $A \times B$

[3 marks]

---