

Multiplying Rational Expressions

① $\frac{4x}{y^5} \cdot \frac{8y^2}{2x^3}$

$$\frac{32x^1 y^2}{2x^3 y^5}$$

$$\boxed{\frac{16}{x^2 y^3}}$$

② $\frac{x+2}{x-7} \cdot \frac{x+1}{x+2}$

$$\frac{\cancel{(x+2)}(x+1)}{(x-7)\cancel{(x+2)}} = \boxed{\frac{x+1}{x-7}}$$

③ $\frac{z+7}{z-3} \cdot \frac{\cancel{z-3}}{\cancel{z+7}}$

$$1$$

⑤ $\frac{a-5}{(a+1)^2} \cdot \frac{a+1}{a^2+6}$

$$\frac{(a-5)\cancel{(a+1)}}{\cancel{(a+1)}(a+1)(a^2+6)}$$

$$\boxed{\frac{a-5}{(a^2+6)(a+1)}}$$