



Q-1 / Simplify the following expression:

①
$$\frac{2x^5y + 4x^4y^2 - 4x^2y^4 - 2xy^5}{(x+y)^3(x-y)}$$

Group ()

Names :

1-

2-

3-

4-

5-

6-

②
$$\frac{(3x^2 - 2xy - y^2)(x^2 - y^2)}{(3x^2 + 4xy + y^2)(x - y)^2}$$

③
$$\frac{x^{-1}y^{-1} - \frac{1}{xy} + xy^{-1} - x^{-1}y}{(xy)^{-1}(x-y)(x+y)}$$

④ $\frac{10}{7} \div \left(\frac{3}{2} - \frac{4}{5} \right)^{-1}$

⑤ $\frac{x+y}{x-y} \cdot \frac{x^{-1}-y^{-1}}{x^{-1}+y^{-1}} \quad (\text{where } x \neq 0, y \neq 0 \text{ and } x \neq y)$

⑥ $\frac{m^3+n^3}{2m^2+mn-n^2} \div \frac{m^3n-m^2n^2+mn^3}{2m^3n^2-m^2n^3}$