

# Practice 3/15

$$\textcircled{1} \frac{t^3 - t}{t^3 - t^2} = \frac{t+1}{t}$$

$$\textcircled{2} \frac{2u^2 + 3uv - 2v^2}{2u^2 - 3uv - 2v^2} \cdot \frac{2u+v}{2u-v} = \frac{u+2v}{u-2v}$$

$$\textcircled{3} \frac{1}{a^2} - \frac{2}{ab} + \frac{1}{b^2} = \frac{b^2 - 2ab + a^2}{a^2b^2}$$

$$\textcircled{4} \frac{1}{4x^2 - 4x + 1} - \frac{1}{4x^2 - 1} = \frac{2}{(2x-1)^2(2x+1)}$$

$$\textcircled{5} \frac{y^3 + 3y}{y^2 - 9} \div \frac{y^2 + 5y - 14}{y^2 + 4y - 21} = \frac{y(y^2 + 3)}{(y+3)(y-2)}$$

$$\textcircled{6} \frac{4a^2 - 9b^2}{8a^3 - 27b^3} \cdot \frac{4a^2 + 6ab + 9b^2}{4a^2 + 12ab + 9b^2} = \frac{1}{2a+3b}$$

$$\textcircled{7} \left[ \frac{m^2 - 4n^2}{m+2n} \div (m+2n) \right] \cdot \frac{2n}{m-2n} = \frac{2n}{m+2n}$$

⑧

$$\frac{1}{x+1} - \frac{x}{x-2} + \frac{x^2+2}{x^2-x-2} = 0$$

$$\textcircled{9} \quad \frac{y-9}{y^2-16} - \frac{7-y}{16-y^2} = \frac{-2}{y^2-16}$$

$$\textcircled{10} \quad \frac{y-2}{4y+8} - \frac{y+6}{5y+10} = \frac{y-34}{20y+40}$$

$$\textcircled{11} \quad \frac{3y+2}{2y^2-y-10} + \frac{8}{2y^2-7y+5} = \frac{3y^2+7y+14}{(2y-5)(y+2)(y-1)}$$