

5-4

$$\textcircled{\#5} \frac{(p-4)^2}{2p^2-9p+4} = \frac{(p-4)(p-4)}{2p^2-8p-p+4} = \frac{(p-4)(p-4)}{2p(p-4)-1(p-4)}$$

$$= \frac{(p-4)\cancel{(p-4)}}{(2p-1)\cancel{(p-4)}} = \frac{p-4}{2p-1}$$

$$9) \frac{t^2-9}{t^3-6t^2+9t} = \frac{(t-3)(t-3)}{t(t^2-6t+9)} = \frac{\cancel{(t-3)}(t+3)}{t\cancel{(t-3)}(t-3)} = \frac{(t+3)}{t(t-3)}$$

$$11) (a^2+ab)(a^2-b^2)^{-1} = \frac{(a^2+ab)}{(a^2-b^2)} = \frac{a\cancel{(a+b)}}{(a-b)\cancel{(a+b)}} = \frac{a}{(a-b)}$$

$$13) \frac{16-9b^2}{3b^2+11b-20} = \frac{(4-3b)(4+3b)}{3b^2+15b-4b-20} = \frac{(4-3b)(4+3b)}{3b(b+5)-4(b+5)}$$

$$= \frac{(4-3b)(4+3b)}{3b(b+5)-4(b+5)} = \frac{\cancel{(4-3b)}(4+3b)}{\cancel{(3b-4)}(b+5)} = \frac{\cancel{(4-3b)}(4+3b)}{(-1)\cancel{(4-3b)}(b+5)} = \frac{(4+3b)}{(b+5)}$$

$$15) \frac{y^4-16}{(y+2)^2(y^2+4)} = \frac{(y^2-4)\cancel{(y^2+4)}}{(y+2)(y+2)\cancel{(y^2+4)}} = \frac{\cancel{(y-2)}(y+2)}{(y+2)\cancel{(y+2)}} = \frac{(y-2)}{(y+2)}$$