

$$1. \frac{2+2a}{a+1} = \frac{2(1+a)}{(a+1)} = \underline{\underline{2}}$$

$$2. \frac{3-6x}{4-8x} = \frac{3(1-2x)}{4(1-2x)} = \underline{\underline{\frac{3}{4}}}$$

$$3. \frac{6x+x^2}{x+6} = \frac{x(6+x)}{(x+6)} = \underline{\underline{x}}$$

$$4. \frac{3y-2}{2-3y} = \frac{-1(2-3y)}{(2-3y)} = \underline{\underline{-1}}$$

$$5. \frac{1-x^2}{1+x} = \frac{(1+x)(1-x)}{(1+x)} = \underline{\underline{1-x}}$$

$$6. \frac{9+a}{a^2-81} = \frac{(a+9)}{(a+9)(a-9)} = \underline{\underline{\frac{1}{a-9}}}$$

$$7. \frac{4u-u^3}{3u-6} = \frac{u(4-u^2)}{3(u-2)} = \frac{u(2+u)(2-u)}{-3(2-u)} = \underline{\underline{-\frac{u(2+u)}{3}}}$$

$$8. \frac{9x^2+12x+4}{3x+2} = \frac{(3x+2)(3x+2)}{(3x+2)} = \underline{\underline{3x+2}}$$

$$9. \frac{25x}{5-10x} = \frac{25x}{5(1-2x)} = \underline{\underline{\frac{5x}{1-2x}}}$$

$$10. \frac{5b^3}{10b-25b^2} = \frac{5b^3}{5b(2-5b)} = \underline{\underline{\frac{b^2}{2-5b}}}$$

$$11. \frac{11+c}{c^2-121} = \frac{(c+11)}{(c+11)(c-11)} = \underline{\underline{\frac{1}{c-11}}}$$

$$12. \frac{d^3-d^2x}{d^2x-dx^2} = \frac{d^2(d-x)}{dx(d-x)} = \underline{\underline{\frac{d}{x}}}$$

$$13. \frac{6r^2-6}{(r+1)(r-1)} = \frac{6(r^2-1)}{(r+1)(r-1)} = \frac{6(r+1)(r-1)}{(r+1)(r-1)} = \underline{\underline{6}}$$

$$14. \frac{4s-4}{s^2-2s+1} = \frac{4(s-1)}{(s-1)(s-1)} = \underline{\underline{\frac{4}{s-1}}}$$

$$15. \frac{3b-9}{b^2-6b+9} = \frac{3(b-3)}{(b-3)(b-3)} = \underline{\underline{\frac{3}{b-3}}}$$

$$16. \frac{5a^2-5b^2}{(a+b)^2} = \frac{5(a^2-b^2)}{(a+b)(a+b)} = \frac{5(a+b)(a-b)}{(a+b)(a+b)} = \underline{\underline{\frac{5(a-b)}{(a+b)}}}$$