

- (1) Evaluate without a calculator: $\left(\frac{2}{3}\right)^{-2}$
- (2) Simplify completely without any negative exponents $\left(\frac{3x^{3/2}y^3}{x^2y^{-1/2}}\right)^{-2}$
- (3) Expand and simplify $(2x + 3)^2$
- (4) Factor $2x^2 + 5x - 12$
- (5) Factor $x^3 - 3x^2 - 4x + 12$
- (6) Simplify the rational expression $\frac{x^2 + 3x + 2}{x^2 - x - 2}$
- (7) Simplify the rational expression $\frac{x^2}{x^2 - 4} - \frac{x + 1}{x + 2}$
- (8) Simplify the rational expression $\frac{\frac{y}{x} - \frac{x}{y}}{\frac{1}{y} - \frac{1}{x}}$
- (9) Solve the equation $x^2 - 5x + 6 = 0$
- (10) Solve the equation $2x^2 + 4x + 1 = 0$
- (11) Rationalize the expression and simplify $\frac{\sqrt{10}}{\sqrt{5} - 2}$
- (12) Rationalize the expression and simplify $\frac{\sqrt{4+h} - 2}{h}$
- (13) Find an equation for the line passing through the points $(-7, 4)$ and $(5, -12)$ in the plane.