

$$1. 1 - \frac{12}{x-2} + \frac{17}{x-3}$$

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

$$3. \frac{A}{x} + \frac{B}{x^2} + \frac{C}{x^3} + \frac{D}{2x+1} + \frac{Ex+F}{x^2+3} + \frac{Gx+H}{(x^2+3)^2} + \frac{I}{5-x}$$

$$4. \frac{A}{x} + \frac{B}{x^2} + \frac{C}{x-1} + \frac{D}{(x-1)^2} + \frac{E}{(x-1)^3} + \frac{F}{2x-3} + \frac{Gx+H}{x^2+1}$$

$$5. \frac{2}{x-1} - \frac{1}{2x+1} + \frac{3}{x+2}$$

$$6. \frac{1}{x+1} - \frac{1}{x-3} + \frac{4}{2x-3}$$

$$7. \frac{1/12}{x-2} + \frac{1/2}{(x-2)^2} + \frac{11/12}{x+4}$$

$$8. -\frac{4}{x} + \frac{5}{x-3} + \frac{1}{(x-3)^2}$$

$$9. \frac{3x+1}{x^2+4} - \frac{5}{2x-1}$$

$$10. \frac{4}{x} - \frac{3}{x^2} - \frac{2x-5}{x^2+1}$$

$$11. \frac{2x}{x^2+1} + \frac{x-3}{(x^2+1)^2}$$

$$12. \frac{2}{x} + \frac{1}{x^2+4} - \frac{x}{(x^2+4)^2}$$

$$13. 2x + 1 - \frac{3}{x-2} + \frac{5}{3x+1}$$

$$14. 4x + \frac{3}{x} - \frac{1}{x^2} + \frac{x-1}{x^2+2}$$