

Math 3 Test REVIEW

Name _____

Simplify

Simplify:
① $\frac{x^2 + 5x + 6}{x^3 + 2x^2}$

Multi:
② $\frac{x^2 - 2x}{x^2 + 2x + 1} \cdot \frac{x^2 + 4x + 3}{x^2 + 3x}$

Divide:
③ $\frac{x^2}{x^2 - 1} \div \frac{3x}{x + 1}$

Simplify:
④ $\frac{x^2 - 3x - 18}{x^2 - 36}$

a) $\frac{x-2}{x+6}$

b) $\frac{x-3}{x-6}$

c) $\frac{x+3}{x-6}$

d) $\frac{x+3}{x+6}$

e) $\frac{x+2}{x-6}$

Multi:

⑤ $\frac{x^2 - 3x - 10}{x^2 - 6x + 5} \cdot \frac{x-1}{x^2 - 4}$

a) $x-2$

b) $\frac{1}{x+2}$

c) $\frac{x-1}{x+1}$

d) $x+2$

e) $\frac{1}{x-2}$

Add:

⑥ $\frac{5}{x+3} + \frac{2x-1}{x+3}$

⑦ $\frac{x}{x-7} + \frac{16}{x^2-49}$

⑧ $\frac{3}{x-1} - \frac{4}{x+1}$

Add:

⑨ $\frac{3x^2}{7x} + \frac{4x}{7x}$

a) $\frac{7x^2}{7x}$

b) $\frac{3x^2+4x}{7x}$

c) $\frac{3x^2+4x}{7x^2}$

d) $\frac{3x^2+4x}{49x^2}$

e) $\frac{12x^3}{49x^2}$

Subtract:

⑩ $\frac{8x}{x^2-16} - \frac{4}{x+4}$

a) $\frac{4}{x+4}$

b) $\frac{4x+16}{(x+4)(x-4)}$

c) $\frac{4x-16}{(x+4)(x-4)}$

d) $\frac{4x-4}{(x+4)(x-4)}$

e) $\frac{4}{x-4}$

⑪ Solve: $\frac{x+3}{5} = \frac{6x-8}{5}$

⑫ Solve: $\frac{8}{(n+2)} + \frac{3}{1} = \frac{10}{(n+2)}$