

Simplify the expressions below. Multiply or divide if necessary.

$$1) \frac{60x^3}{12x} = \boxed{5x^2}$$

$$2) \frac{70v^2}{100v} = \boxed{\frac{7v}{10}}$$

$$3) \frac{m+7}{m^2+4m-21} = \boxed{\frac{1}{m-3}}$$

$(m+7)(m-3)$

$$4) \frac{n^2+6n+5}{n+1} = \frac{(n+5)(n+1)}{n+1} = \boxed{n+5}$$

$$5) \frac{35x-35}{25x-40} = \boxed{\frac{7(x-1)}{5x-8}}$$

$\frac{35(x-1)}{5(5x-8)}$

$$6) \frac{-n^2+16n-63}{n^2-2n-35} = \boxed{\frac{-(n-9)}{n+5}}$$

$\frac{-(n-9)(n-7)}{(n-7)(n+5)}$

$$7) \frac{p+4}{p^2+6p+8} = \boxed{\frac{1}{p+2}}$$

$(p+4)(p+2)$

$$8) \frac{9}{15a-15} = \boxed{\frac{3}{5(a-1)}}$$

$15(a-1)$

$$9) \frac{2a^3+10a}{3a^2+15a} = \boxed{\frac{2}{3}}$$

$\frac{2a(a+5)}{3a(a+5)}$

$$10) \frac{p^2-3p-10}{p^2+p-2} = \boxed{\frac{p-5}{p-1}}$$

$\frac{(p-5)(p+2)}{(p+2)(p-1)}$

$$11) \frac{x^2+x-6}{x^2+8x+15} = \boxed{\frac{x-2}{x+5}}$$

$\frac{(x+3)(x-2)}{(x+3)(x+5)}$

$$12) \frac{a^2+5a+4}{a^2+9a+20} = \boxed{\frac{a+1}{a+5}}$$

$\frac{(a+4)(a+1)}{(a+4)(a+5)}$

$$13) \frac{x^2 - 2x - 15}{x^2 - 6x + 5} = \frac{x+3}{x-1}$$

$$\frac{(x-5)(x+3)}{(x-5)(x-1)}$$

$$14) \frac{10x-6}{10x-6} = 1$$

$$15) \frac{(v-7)(v+8)}{(v+8)(v-10)} \div \frac{1}{v-10} = v-7$$

$$\frac{(v-7)(v+8)}{(v+8)(v-10)} \cdot \frac{v-10}{1}$$

$$16) \frac{n+3}{n+2} \div \frac{(n-1)(n+3)}{(n-1)^2} = \frac{n-1}{n+2}$$

$$\frac{n+3}{n+2} \cdot \frac{(n-1)^2}{(n-1)(n+3)}$$

$$17) \frac{x+3}{4} \cdot \frac{3(x-6)}{3(x+3)} = \frac{x-6}{4}$$

$$18) \frac{x-8}{(x+6)(x-8)} \cdot \frac{4x(x+10)}{x+10} = \frac{4x}{x+6}$$

$$19) \frac{2b^2 - 12b}{b+5} \div \frac{b-6}{b+5} = 2b$$

$$\frac{2b(b-6)}{b+5} \cdot \frac{b+5}{b-6}$$

$$20) \frac{1}{n+9} \div \frac{6-n}{3n-18} = \frac{-3}{n+9}$$

$$\frac{1}{n+9} \cdot \frac{3(n-6)}{-(n-6)}$$

$$21) \frac{28-7b}{b-4} \cdot \frac{1}{b+10} = \frac{-7}{b+10}$$

$$\frac{-7(b-4)}{b-4} \cdot \frac{1}{b+10}$$

$$22) \frac{2}{v^2 - 12v + 27} \cdot \frac{v^2 - 12v + 27}{3} = \frac{2}{3}$$

$$23) \frac{1}{5p^2} \div \frac{9p-36}{5p^3-35p^2} = \frac{p-7}{9(p-4)}$$

$$\frac{1}{5p^2} \cdot \frac{5p^2(p-7)}{9(p-4)}$$

$$24) \frac{-(x^2+7x-2)}{8-7x-x^2} \cdot \frac{x+5}{9x-9} = \frac{-(x+5)}{9}$$

$$\frac{-(x+2)(x-1)}{x+2} \cdot \frac{x+5}{9(x-1)}$$

$$25) \frac{x^2-16}{9-x} \cdot \frac{x^2+x-90}{x^2+14x+40} = -(x-4)$$

$$\frac{(x+4)(x-4)}{-(x-4)} \cdot \frac{(x+10)(x-9)}{(x+10)(x+4)}$$

$$26) \frac{10x^2-20x}{40x^3-80x^2} \cdot \frac{16x^3+80x^2}{6x+30} = \frac{2x}{3}$$

$$\frac{4x(x-2)}{40x^2(x-2)} \cdot \frac{16x^2(x+5)}{6(x+5)}$$