

Obj. 1

Simplifying Rational Expressions

Simplify each expression.

1) $\frac{36x^3}{42}$

2) $\frac{16r^2}{16}$

3) $\frac{16p^2}{28}$

4) $\frac{32n^2}{24}$

5) $\frac{70n^2}{28}$

6) $\frac{15n}{30}$

7) $\frac{2r-4}{r-2} = \frac{2(r-2)}{r-2}$

8) $\frac{45}{10a-10}$

9) $\frac{x-4}{3x^2-12x} = \frac{x-4}{3x(x-4)}$

10) $\frac{15a-3}{24}$

11) $\frac{v-5}{v^2-10v+25} = \frac{v-5}{(v-5)(v-5)}$

12) $\frac{x+6}{x^2+5x-6} = \frac{x+6}{(x+6)(x-1)}$

$$13) \frac{27}{27x+18} = \frac{27}{9(3x+2)}$$

$$14) \frac{v^2-7v-30}{v^2-5v-24} = \frac{(v+3)(v-10)}{(v+3)(v-8)}$$

$$15) \frac{x^2+8x+12}{x^2+3x-18} = \frac{(x+6)(x+2)}{(x+6)(x-3)}$$

$$16) \frac{x^2-11x+18}{x^2+2x-8} = \frac{(x-9)(x-2)}{(x+4)(x-2)}$$

$$17) \frac{b^2+3b-28}{b^2-49} = \frac{(b+7)(b-4)}{(b+7)(b-7)}$$

$$18) \frac{v^2-3v-40}{v^2-11v+24} = \frac{(v+5)(v-8)}{(v-8)(v-3)}$$

$$19) \frac{4n-4}{6n-20} = \frac{4(n-1)}{2(3n-10)}$$

$$20) \frac{v^2-5v-14}{v^2+4v+4} = \frac{(v+2)(v-7)}{(v+2)(v+2)}$$