

Simplify each and state the excluded values.

1) $\frac{6p}{p+7} \cdot \frac{p^2+8p+7}{p^2+6p+5}$

3) $\frac{a^2-25}{a-6} \cdot \frac{1}{a+5}$

5) $\frac{4x}{x+4} \cdot \frac{5x+20}{5}$

7) $\frac{10n^2-70n}{5} \div \frac{n-7}{5}$

9) $\frac{6p}{2} \div \frac{p+5}{2p+10}$

11) $\frac{2v}{v^2+7v+10} \div \frac{2v}{4v+8}$

2) $\frac{x-2}{x+7} \cdot \frac{9x-36}{x^2-6x+8}$

4) $\frac{x^2+13x+42}{4} \cdot \frac{5}{5x+35}$

6) $\frac{1}{2n^2} \cdot \frac{6n^2-60n}{n-10}$

8) $\frac{x^2+17x+70}{x^2+8x-20} \div \frac{x-5}{x-2}$

10) $\frac{1}{b+4} \div \frac{b+2}{b^2-4b-32}$

12) $\frac{4n^2}{n+10} \div \frac{10n^3+90n^2}{n^2+19n+90}$

Answers to (ID: 1)

1) $\frac{6p}{p+5}; \{-7, -5, -1\}$

5) $4x; \{-4\}$

9) $6p; \{-5\}$

2) $\frac{9}{x+7}; \{-7, 4, 2\}$

6) $\frac{3}{n}; \{0, 10\}$

10) $\frac{b-8}{b+2}; \{-4, 8, -2\}$

3) $\frac{a-5}{a-6}; \{6, -5\}$

7) $10n; \{7\}$

11) $\frac{4}{v+5}; \{-5, -2, 0\}$

4) $\frac{x+6}{4}; \{-7\}$

8) $\frac{x+7}{x-5}; \{2, -10, 5\}$

12) $\frac{2}{5}; \{-10, -9, 0\}$