

Chapter 13 Review

Factor each completely.

1) $4a^3 - 48a^2 + 128a$

2) $5m^2 + 2m - 7$

Simplify each expression.

3) $\frac{n^2 - 6n - 7}{n^2 - 4n - 21}$

4) $\frac{3r^3 + 3r^2 - 6r}{6r^3 + 18r^2 + 12r}$

5) $\frac{n^2 - 13n + 36}{6} \cdot \frac{5}{5n - 20}$

6) $\frac{7n + 5}{n^2 - 11n + 28} \cdot \frac{2n - 14}{14n + 10}$

$$7) \frac{6x^2 + 21x}{14x^3 + 49x^2} \div \frac{1}{7x^2}$$

$$8) \frac{12x - 30}{4x^2 - 8x - 5} \div \frac{6x - 12}{4x + 2}$$

$$9) \frac{4x}{4y} + \frac{5x}{2y^2}$$

$$10) \frac{6}{2b - 1} + \frac{3}{b + 5}$$

$$11) \frac{x + 5y}{2x} - \frac{4x}{5}$$

$$12) \frac{2p}{p - 5} - \frac{5}{p + 6}$$