

1. Divide: $24n^5 \div 6n^4$

$$= \boxed{4n} \leftarrow 5-4$$

↑
24 ÷ 6

2. Divide: $\frac{60y^4 - 15y^3}{15y^2} = \frac{60y^4}{15y^2} - \frac{15y^3}{15y^2}$

$$= \boxed{4y^2 - y}$$

3. Divide: $\frac{15x^7 - 5x^3 + 45x}{-5x} = \frac{15x^7}{-5x} - \frac{5x^3}{-5x} + \frac{45x}{-5x}$

$$= -3x^6 - (-x^2) + (-9)$$

$$= \boxed{-3x^6 + x^2 - 9}$$

4. Find the unknown factor: $\frac{\cancel{3} \cdot (?)}{\cancel{3}} = \frac{9x + 6}{3}$

$$(?) = \frac{9x}{3} + \frac{6}{3}$$

$$= \boxed{3x + 2}$$

5. Find the unknown factor: $\frac{18x^5 - 9x^3 + 3x^2}{3x^2} = \frac{\cancel{3x^2} \cdot (?)}{\cancel{3x^2}}$

$$(?) = \frac{18x^5}{3x^2} - \frac{9x^3}{3x^2} + \frac{3x^2}{3x^2}$$

$$= \boxed{6x^3 - 3x + 1}$$

6. Factor: $12x^4 + 16x^2$ ← GCF of $12x^4$ and $16x^2$ is $4x^2$

$$= 4x^2 \left(\frac{12x^4 + 16x^2}{4x^2} \right)$$

$$= \boxed{4x^2(3x^2 + 4)}$$

7. Factor: $28y^4 - 7y^3 + 14y$ ← GCF of $28y^4$, $7y^3$, $14y$ is $7y$

$$= 7y \left(\frac{28y^4 - 7y^3 + 14y}{7y} \right)$$

$$= \boxed{7y(4y^3 - y^2 + 2)}$$

Q: The more you take, the more you leave behind. What are they?