

43.

$$(\underline{2m^3 - 4m + 3}) + (\underline{2m^2 + 5m - 12})$$

$$2m^3 + 2m^2 + m - 9$$

$$44. (8q^3 r^2 w^2)(5r^5 s^7)$$

$$40q^3 r^7 w^2 s^7$$

$$r^2 \cdot r^5 = r^{2+5} = r^7$$

$$45. (4x^2 y)(-3xy^3)^2$$

$$(4x^2 y)(9x^2 y^6)$$

$$36x^4 y^7$$

$$(y^3)^2$$

$$y^{3 \cdot 2}$$

$$y^6$$

$$47. (y^2 - 7y + 4) - (3 + 2y - y^2)$$

$$\cancel{y^2} - 7y + 4 - 3 - 2y + \cancel{y^2}$$

$$2y^2 - 9y + 1$$

$$50. (3a - 4b)(3a + 4b)$$

$$9a^2 + 12ab - 12ab - 16b^2$$

$$9a^2 - 16b^2$$

$$54. xy(x - y)(x - y)$$

$$xy(x^2 - xy - xy + y^2)$$

$$xy(x^2 - 2xy + y^2)$$

$$x^3y - 2x^2y^2 + xy^3$$

$$55. (2c - 1)(c^2 - 4c + 2)$$

$$2c^3 - 8c^2 + 4c - c^2 + 4c - 2$$

$$2c^3 - 9c^2 + 8c - 2$$

59. Find GCF + LCM

$$\begin{array}{ccc}
 26p^3q^2r^2 & 39p^2q^3r & 78p^2q^2r^3 \\
 \uparrow & \uparrow & \uparrow \\
 2 \cdot 13 & 3 \cdot 13 & 2 \cdot 3 \cdot 13
 \end{array}$$

$$2 \cdot 13 p^3 q^2 r^2 \quad 3 \cdot 13 p^2 q^3 r^2 \quad \underline{2 \cdot 3 \cdot 13 p^2 q^2 r^3}$$

GCF: $13p^2q^2r^2$

LCM: $2 \cdot 3 \cdot 13 p^3 q^3 r^3 = 78p^3q^3r^3$

63. $2(y-x) = 5 + 2x$

$2(y+x) = 5 - 2y$

$y = 1.5$



$$2y - 2x = 5 + 2x$$

$$2y + 2x = 5 - 2y$$

$$2(1.5 + x) = 5 - 2(1.5)$$

$$3 + 2x = 5 - 3$$

$$3 + 2x = 2$$

$$-3 \quad -3$$

$$\underline{2x = -1}$$

$$x = -\frac{1}{2}$$

$$2y - 4x = 5$$

$$2(4y + 2x = 5)$$

$$2y - 4x = 5$$

$$8y + 4x = 10$$

$$10y = 15$$

$$\frac{10}{10}$$

$$y = \frac{15}{10} = \frac{3}{2} = 1.5$$