١-١ ضرب العبارات النسبية وقسمتها

1A

$$\frac{4y(y-3)(y+4)}{y(y^2-y-6)}$$

$$\frac{4y(y-3)(y+4)}{y(y-3)(y+2)} = \frac{4(y+4)}{(y+2)}$$

العبارة تكون غير معرفة عندما $y = 0, y = -2, y = 3$

1B

$$\frac{2z(z+5)(z^2+2z-8)}{(z-1)(z+5)(z-2)}$$

$$\frac{2Z(Z+5)(z+4)(z-2)}{(z-1)(z+5)(z-2)} = \frac{2z(z+4}{(z-1)}$$

العبارة تكون غير معرفة عندما $z = 1, z = 2, z = -5$

2 ما قيم x التي تجعل العبارة $\frac{x(x^2+8x+12)}{-6(x^2-3x-10)}$ غير معرَّفة؟

A $5, 0$ **B** $5, -2$ **C** $0, -2$ **D** $5, -6$

$$\frac{x(x^2+8x+12)}{-6(x^2-3x-10)} = \frac{x(x+2)(x+6)}{-6(x-5)(x+2)}$$

والاجابة هي (B)

العبارة تكون غير معرفة عندما $x = -2, x = 5$

3A

$$\frac{(xz-4z)}{z^2(4-x)}$$

$$\frac{z(x-4)}{-z^2(x-4)} = \frac{-z(4-x)}{z^2(4-x)} = \frac{1}{-z}$$

3B

$$\frac{8a^3-b^3}{b-2a}$$

$$\frac{(2a-b)(4a^2+2ab+b^2)}{-(2a-b)} = -(4a^2+2ab+b^2)$$

4B

$$\frac{12c^3d^2}{21ab} \cdot \frac{14a^2b}{8c^2d}$$

$$\frac{2.2.3.c.c.c.d.d.2.7.a.a.b}{3.7.a.b.2..2.2.c.c.d} = acd$$

$$\frac{6xy}{15ab^2} \cdot \frac{21a^3}{18x^4y}$$

4B

$$\frac{2.3.x.y.3.7.a.a.a}{3.5.a.b.b.2.3.3.x.x.x.x.y} = \frac{7a^2}{15b^2x^3}$$

$$\frac{16mt^2}{21a^4b3} \div \frac{24m^3}{7a^2\ b^2}$$

4C

$$\frac{2.2.2.2.m.t.t.7.a.a.b.b}{3.7.a.a.a.a.b.b.b.2.2.2.3.m.m.m} = \frac{2t^2}{9a^2bm^2}$$

$$\frac{12x^4y^2}{40a^4b^4} \div \frac{6x^2y^4}{16a^2x}$$

4D

$$\frac{3x^4y^2}{10a^4b^4} \cdot \frac{8a^2}{3xy^4} = \frac{x^3}{5a^2b^4} \cdot \frac{4}{y^2} = \frac{4x^3}{5a^2b^4y^2}$$

١-١ ضرب العبارات النسبية وقسمتها

5A

$$\frac{8x-20}{x^2+2x-35}\cdot\frac{x^2-7x+10}{4x^2-16}$$

$$\frac{4(2x-5)}{(x+7)(x-5)}\cdot\frac{(x-2)(x-5)}{4(x^2-4)}=\frac{4(2x-5)}{(x+7)}\cdot\frac{(x-2)}{4(x^2-4)}$$

$$=\frac{4(2x-5)}{(x+7)(x-5)}\cdot\frac{(x-2)}{4(x-2)(x+2)}=\frac{2x-5}{(x+2)(x+7)}$$

5B

$$\frac{x^2-9x+20}{x^2+10x+21}\div\frac{x^2-x-12}{6x+42}$$

$$=\frac{x^2-9x+20}{x^2+10x+21}\cdot\frac{6x+42}{x^2-x-12}$$

$$=\frac{(x-4)(x-5)}{(x+7)(x+3)}\cdot\frac{6(x+7)}{(x+3)(x-4)}$$

$$=\frac{6(x-5)}{(x+3)(x+3)}=\frac{6x-30}{(x+3)^2}$$