Division of Algebraic Expressions Ex 8.3 Q4

Answer :

$$\frac{-x^6+2x^4+4x^3+2x^2}{\sqrt{2}x^2}$$

$$= \frac{-x^6}{\sqrt{2}x^2} + \frac{2x^4}{\sqrt{2}x^2} + \frac{4x^3}{\sqrt{2}x^2} + \frac{2x^2}{\sqrt{2}x^2}$$

$$= \frac{-1}{\sqrt{2}}x^{(6-2)} + \sqrt{2}x^{(4-2)} + 2\sqrt{2}x^{(3-2)} + \sqrt{2}x^{(2-2)}$$

$$= \frac{-1}{\sqrt{2}}x^4 + \sqrt{2}x^2 + 2\sqrt{2}x + \sqrt{2}$$

Division of Algebraic Expressions Ex 8.3 Q5

Answer :

$$\frac{5z^3-6z^2+7z}{2z}$$

$$= \frac{5z^3}{2z} - \frac{6z^2}{2z} + \frac{7z}{2z}$$

$$= \frac{5}{2}z^{(3-1)} - 3z^{(2-1)} + \frac{7}{2}$$

$$= \frac{5}{2}z^2 - 3z + \frac{7}{2}$$

Division of Algebraic Expressions Ex 8.3 Q6

Answer :

$$\frac{\sqrt{3}a^4+2\sqrt{3}a^3+3a^2-6a}{3a}$$

$$= \frac{\sqrt{3}a^4}{3a} + \frac{2\sqrt{3}a^3}{3a} + \frac{3a^2}{3a} - \frac{6a}{3a}$$

$$= \frac{1}{\sqrt{3}}a^{(4-1)} + \frac{2}{\sqrt{3}}a^{(3-1)} + a^{(2-1)} - 2$$

$$= \frac{1}{\sqrt{3}}a^3 + \frac{2}{\sqrt{3}}a^2 + a - 2$$

********** END **********