Division of Algebraic Expressions Ex 8.6 Q4

Answer :

$$\frac{acx^2+(bc+ad)x+bd}{(ax+b)}$$

$$=\frac{acx^2+bcx+adx+bd}{(ax+b)}$$

$$=\frac{cx(ax+b)+d(ax+b)}{(ax+b)}$$

$$=\frac{(ax+b)(cx+d)}{(ax+b)}$$

$$=cx+d$$

Division of Algebraic Expressions Ex 8.6 Q5

Answer :

$$\frac{(a^2+2ab+b^2)-(a^2+2ac+c^2)}{(2a+b+c)}$$

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

$$= \frac{(a+b+a+c)(a+b-a-c)}{(2a+b+c)}$$

$$= \frac{(2a+b+c)(b-c)}{(2a+b+c)}$$

$$= b-c$$

Division of Algebraic Expressions Ex 8.6 Q6

Answer :

$$\frac{\frac{1}{4}x^2-\frac{1}{2}x-12}{\frac{1}{2}x-4}$$

$$=\frac{\frac{1}{2}x\left(\frac{1}{2}x-4\right)+3\left(\frac{1}{2}x-4\right)}{\frac{1}{2}x-4}$$

$$=\frac{\left(\frac{1}{2}x-4\right)\left(\frac{1}{2}x+3\right)}{\left(\frac{1}{2}x-4\right)}$$

$$=\frac{1}{2}x+3$$

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