

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:

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

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

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

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

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

$$=b-c$$

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 \*\*\*\*\*\*\*