Section 3.1 and 3.2 – Checking Your understanding

Answer the following three questions, show as many steps as you need to, write clearly and neatly.

1. Simplify the Rational Expression, State the Domain Restrictions

$$\frac{2x^2 + 5xy + 3y^2}{4x^2 + 12xy + 9y^2}$$

2. Multiply the Rational Expressions, simplify if possible, state the Domain Restrictions

$$\frac{x^2 + 7x + 12}{x^2 + 2x - 8} \cdot \frac{x^2 - 3x + 2}{x^2 + 2x - 3}$$

3. Divide the Rational Expressions, simplify if possible, state the Domain Restrictions

$$\left(\frac{2x^2 - 5xy - 3y^2}{3abx - aby} \div \frac{x - 3y}{a^2b}\right) \div \frac{3x - y}{2x + y}$$

Please Scan or take a Photo of your Complete work and Submit it through Google Classroom.
I hope everyone is doing well!