

## Section 2: Dividing and factorising polynomials

### Crucial points

1. **Always check your work carefully**

It is very easy to make silly mistakes when manipulating algebraic expressions.

2. **Make sure that you can divide polynomials with confidence**

Try the different methods (long division, inspection or using a table) and choose the one that you feel most comfortable with. Get lots of practice until you feel really confident. Remember that you can check your answer by multiplying.

3. **Take care with signs**

Be careful about signs when using the factor theorem:

<b>✗</b>	<b><u>Wrong</u></b>	$f(2) = 0 \Rightarrow (x + 2)$ is a factor	<b>✗</b>
<b>✓</b>	<b><u>Right</u></b>	$f(2) = 0 \Rightarrow (x - 2)$ is a factor	<b>✓</b>

4. **When dividing a polynomial, remember that you can check by multiplying**

You can also check the solutions of an equation by substitution.