

Follow these steps when factoring:

Step 1: Factor out GCF

Step 2: Continue factoring if:

- a. You have a binomial consider factoring using difference of perfect squares.
- b. You have a trinomial factor using the X and, if necessary, using the Box.
- c. You have four terms factor using the box.

Always look to continue factoring if the variable has an exponent larger than one. It may not always be possible to continue factoring but check to be sure.

Factor each completely. Show your work. Circle your answers.

1. $27m^2 - 75$

2. $4a^2 - 4a - 15$

3. $4x^3 - 4x^2 - 168x$

4. $24c^4 - 30c^3$

5. $3x^3 + 4x^2 - 48x - 64$

6. $x^4 - x^2 - 12$

7. $32g^5 - 162g$

8. $200p^3 - 160p^2 + 32p$

9. $6x^3 + 16x^2 - 21x - 56$