

Tests

Darken the circle in front of the correct answers. (1 mark each)

1. Which of the following are the factors of $(a + b)^4 - 3ab(a + b)^2$?

☐ $(a + b)(a^3 - b^3)$

☐ $(a + b)(a^3 + b^3)$

☐ $(a - b)(a^3 - b^3)$

☐ $(a - b)(a^3 + b^3)$

2. Which of the following are the factors of $\frac{1}{4}(a + 1)^3 + 2$?

☐ $\frac{1}{4}(a + 1)(a^2 - 7)$

☐ $\frac{1}{4}(a + 1)(a^2 + 7)$

☐ $\frac{1}{4}(a - 3)(a^2 - 3)$

☐ $\frac{1}{4}(a + 3)(a^2 + 3)$

3. Which of the following are the factors of $p^2q^4 - 1$?

☐ $(pq^2 + 1)(pq^2 - 1)$

☐ $(pq^2 + 1)(pq^2 + 1)$

☐ $(pq^2 - 1)(pq^2 - 1)$

☐ $(p^2q - 1)(pq^2 - 1)$

4. Which of the following are the factors of $9a^4 - c^4 + 4c^2x^2 - 4x^4$?

☐ $(3a^2 + c^2 - x^2)(3a^2 - c^2 + x^2)$

☐ $(3a^2 + c^2 + x^2)(3a^2 - c^2 - x^2)$

☐ $(3a^2 + c^2 - 2x^2)(3a^2 - c^2 + 2x^2)$

☐ $(3a^2 + 2c^2 - x^2)(3a^2 - 2c^2 + x^2)$

5. Which of the following are the factors of $2m^3 + 54n^3$?

☐ $2(m + 3n)(m^2 - 3mn + 9n^2)$

☐ $2(m + 3n)(m^2 + 3mn + 9n^2)$

☐ $2(m - 3n)(m^2 + 3mn + 9n^2)$

☐ $2(m - 3n)(m^2 - 3mn + 9n^2)$

Name.....No.....M.3/.....

