

Derivative Applications**Critical & Extreme Points****Inflection Points**

1. *inflection points* $4 - x^2$

2. *inflection points* $x^2 - 2x - 3$

3. *inflection points* $x^3 - 3x + 1$

4. *inflection points* $x^3 - 3x$

5. *inflection points* $4x^3 - 1$

6. *inflection points* $x^4 - x^3$

7. *inflection points* $3x^4 - 2x^2$

8. *inflection points* x^5

9. *inflection points* $x^5 - 2x$

10. *inflection points* $\frac{1}{x^2} + \frac{1}{x}$

Answers**Derivative Applications****Critical & Extreme Points****Inflection Points**

1. None

2. None

3. $(0,1)$ 4. $(0,0)$ 5. $(0, -1)$ 6. $(0,0), \left(\frac{1}{2}, -\frac{1}{16}\right)$ 7. $\left(-\frac{1}{3}, -\frac{5}{27}\right), \left(\frac{1}{3}, -\frac{5}{27}\right)$ 8. $(0,0)$ 9. $(0,0)$ 10. $\left(-3, -\frac{2}{9}\right)$