

**Derivative Applications****Critical & Extreme Points****Global Extreme Points**

1. *global extreme points*  $4 - x^2$

2. *global extreme points*  $x^2 - 2x - 3$

3. *global extreme points*  $x^3 - 3x + 1$

4. *global extreme points*  $x^2 - 6x + 8$

5. *global extreme points*  $x^3 - 3x$

6. *global extreme points*  $(x + 5)^2$

7. *global extreme points*  $\frac{1}{x^2} + \frac{1}{x}$

8. *global extreme points*  $\frac{2x^2 + 6}{x}$

9. *global extreme points*  $\frac{1}{9 + x^2}$

10. *global extreme points*  $\frac{3}{x^3 - 1}$

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

1. Global Maximum  $(0, 4)$

2. Global Minimum  $(1, -4)$

3. None

4. Global Minimum  $(3, -1)$

5. None

6. Global Minimum  $(-5, 0)$

7. Global Minimum  $\left(-2, -\frac{1}{4}\right)$

8. None

9. Global Maximum  $\left(0, \frac{1}{9}\right)$

10. None