

**Derivative Applications****Tangent & Normal****Tangent**

1. *tangent of*  $f(x) = 3x^2$ , at  $x = 3$
2. *tangent of*  $4x^2$ , at  $x = 6$
3. *tangent of*  $5x^2$ , at  $x = 2$
4. *tangent of*  $3\sqrt{x}$ , at  $x = 16$
5. *tangent of*  $f(x) = 4x^2$ , at  $x = 5$
6. *tangent of*  $4\sqrt{x}$ , at  $x = 4$
7. *tangent of*  $2x^3$ , at  $x = 10$
8. *tangent of*  $f(x) = x^6$ , at  $x = 2$
9. *tangent of*  $\frac{(x^2 - 1)}{x^2 + x + 1}$ , at  $(1, 0)$
10. *tangent of*  $f(x) = x^2 - 2x + 1$ , at  $x = 0$

## Answers

### Derivative Applications

#### Tangent & Normal

##### Tangent

1.  $y = 18x - 27$

2.  $y = 48x - 144$

3.  $y = 20x - 20$

4.  $y = \frac{3}{8}x + 6$

5.  $y = 40x - 100$

6.  $y = x + 4$

7.  $y = 600x - 4000$

8.  $y = 192x - 320$

9.  $y = \frac{2}{3}x - \frac{2}{3}$

10.  $y = -2x + 1$