

Hard Tangents & Normals

If patrons can do this, then you have probably mastered what is going on.

1. Find equation of tangent to $y = \sqrt{x} + \frac{1}{\sqrt{x}}$ when

- (a) $x = 1.$
- (b) $x = 4.$
- (c) $x = 2.$

2. Find equation of normal to $y = \sqrt{x} + \frac{1}{x}$ when

- (a) $x = 1.$
- (b) $x = 4.$
- (c) $x = 2.$

3. Find equation of tangent to $y = 2\sqrt{x} - \frac{4}{\sqrt{x}}$ when

- (a) $x = 1.$
- (b) $x = 4.$
- (c) $x = 2.$

4. Find equation of normal to $y = \sqrt{2}\sqrt{x} + \frac{1}{2\sqrt{x}}$ when

- (a) $x = 1.$
- (b) $x = 4.$
- (c) $x = 2.$