

Source:

1 | lamar chain rule

1.1 | 4

$$\frac{\partial}{\partial x} \sqrt{w^3 + 8w^2} = \frac{(3w^2 + 16w)}{2\sqrt{w^3 + 8w^2}}$$

1.2 | 8

1.3 | 9

1.4 | 13

1.5 | 42

1.6 | 43