Source:

1 | lamar chain rule

1.1 | **4**

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

1.2 | **8**

$$\frac{\partial}{\partial x} \tan\left(1 - 2e^x\right) = -\ln x e^x \sec^2\left(1 - 2e^x\right)$$

1.3 | **9**

1.4 | **13**

1.5 | **42**

1.6 | **43**