Mathematics

## 8.EE DVD Proffts, Variation 1

## Task

a. DVDs can be made in a factory in New Mexico at the rate of 20 DVDs per $\$ 3$, but the factory costs $\$ 80,000$ to build. If they make 1 million DVDs, what is the unit cost per DVD?
b. DVDs can be made in a factory in Colorado at the rate of 10 DVDs per $\$ 1.50$, but the factory costs $\$ 100,000$ to build. If they make 1 million DVDs, what is the unit cost per DVD?
c. How much can a buyer save on a million DVDs by buying DVDs from New Mexico instead of DVDs from Colorado?
d. Find an equation for the cost of making $x$ number of DVDs in the factory in New Mexico.
e. Find an equation for the cost of making $x$ number of DVDs in the factory in Colorado.
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