

Lesson 6 Problem-Solving Practice

Construct Functions

<p>1. An education association wants to rent a cotton candy machine for a carnival. There is a deposit to rent it plus an additional \$8 per hour. The total cost to rent the machine for 5 hours is \$115. Assume the relationship is linear. Find and interpret the rate of change and the initial value.</p> <p>The rate of change is \$8 per hour. The initial value is \$70.</p>	<p>2. Mr. Dodson is having the exterior of his house painted. The painters charge \$35 per hour plus the cost of materials. After 20 hours of work, Mr. Dodson owes the painters \$840. Assume the relationship is linear. Find and interpret the rate of change and the initial value.</p> <p>The rate of change is \$35 per hour. The initial value is \$140.</p>
<p>3. Before a movie began, a theater had people waiting in the seats. During each of 4 movie trailers, 7 more people came into the theater. When the movie started 82 people were in the theater. Assume the relationship is linear. Find and interpret the rate of change and the initial value.</p> <p>The rate of change is 7 people per movie trailer. The initial value is 54 people.</p>	<p>4. The Art Club collected \$15 from each of its 17 members for dues. It then had \$300 in its account. Assume the relationship is linear. Find and interpret the rate of change and the initial value.</p> <p>The rate of change is \$15 per member. The initial value is \$45.</p>
<p>5. The population of DeSoto rose an average of 142 people for each of 5 years. It then had 5,428 people. Assume the relationship is linear. Find and interpret the rate of change and the initial value.</p> <p>The rate of change is 142 people. The initial value is 4,718 people.</p>	<p>6. Ling starts out with a certain number of baseball cards and plans to collect 8 each month. At the end of a year, he has 109 baseball cards. Assume the relationship is linear. Find and interpret the rate of change and the initial value.</p> <p>The rate of change is 8 cards per month. The initial value is 13 cards.</p>