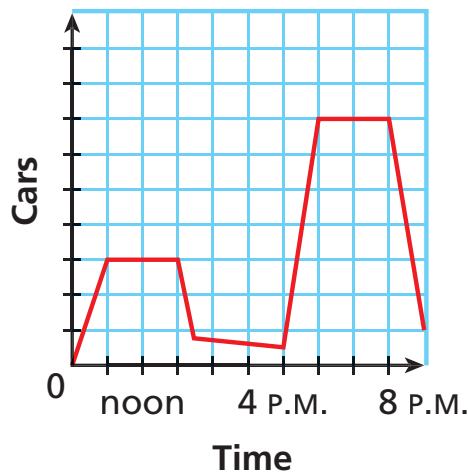# 9-1 Variation Functions

✓ Lesson Quiz

1. The graph shows the number of cars in a high school parking lot on a Saturday, beginning at 10 A.M. and ending at 11 P.M. Give a possible interpretation for this graph.

2. An online computer game company has 10,000 subscribers paying $8 per month. Their research shows that for every 25-cent reduction in their fee, they will attract another 500 users. Use a table and an equation to find the fee that the company should charge to maximize their revenue.

Holt Algebra 2

9-1 Variation Functions

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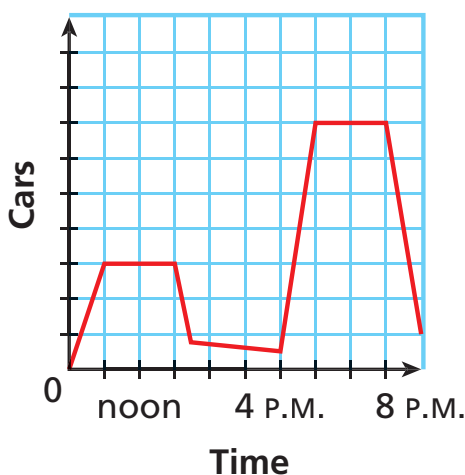

Possible answer: Football practice goes from 11:00 A.M. until 1:00 P.M. Families begin arriving at 4:00 P.M. for a play that begins at 5:00 and ends at 7:00. After the play, most people leave.

2. An online computer game company has 10,000 subscribers paying $8 per month. Their research shows that for every 25-cent reduction in their fee, they will attract another 500 users. Use a table and an equation to find the fee that the company should charge to maximize their revenue.

Fee ($)	Users	Revenue ($)
$8.00	10,000	$80,000
$7.75	10,500	$81,375
$7.50	11,000	$82,500
$7.25	11,500	$83,375

$R(f) = -2000f^2 + 26{,}000f; \$6.50$

Holt Algebra 2