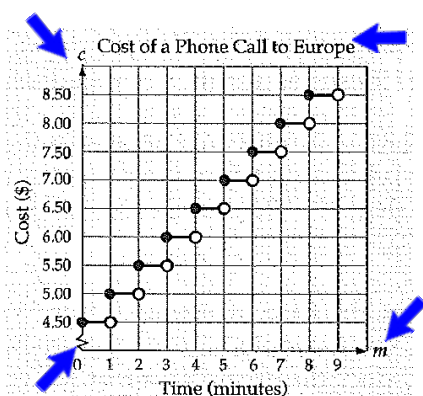
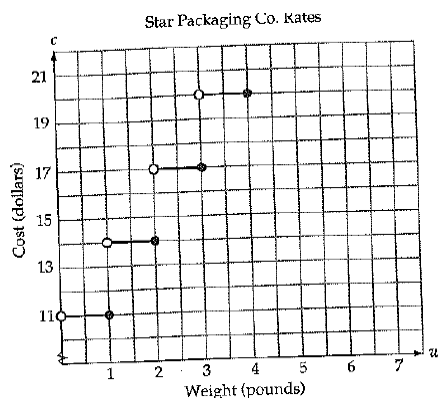


## 4.3 C - Evaluating Piecewise Functions



(x, y) replaced by (m, c)

(minutes, cost)

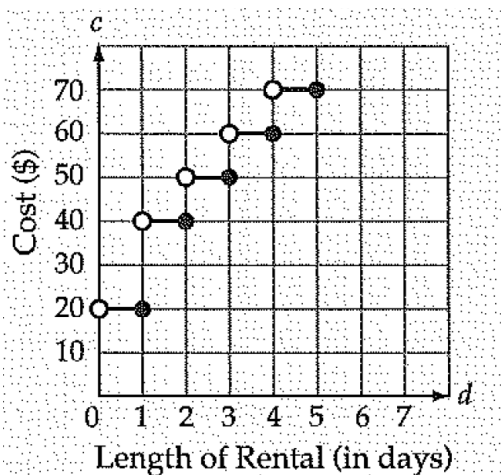
independent variable = m (minutes)

dependant variable = c (cost depends on minutes of call)

$$c(m) = \begin{cases} 4.5 & \text{if } 0 \leq m < 1 \\ 5 & \text{if } 1 \leq m < 2 \\ 5.5 & \text{if } 2 \leq m < 3 \\ 6 & \text{if } 3 \leq m < 4 \\ 6.5 & \text{if } 4 \leq m < 5 \\ 7 & \text{if } 5 \leq m < 6 \\ 7.5 & \text{if } 6 \leq m < 7 \\ 8 & \text{if } 7 \leq m < 8 \\ 8.5 & \text{if } 8 \leq m < 9 \end{cases}$$

### 4.3C Evaluating Piecewise functions.notebook

At Birch Run Golf Club, golf clubs are rented by the day. You pay for the whole day even if you turn in the clubs early. The first day rental is \$20, then \$20 additional dollars for the second day. After the second day the rental is only \$10. The graph below represents the rental pricing.



1) What does (5, 70) mean?

5 days cost \$70

2) What is the cost of renting for 2 days?

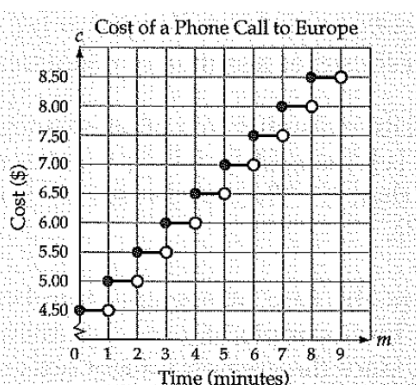
\$40

3) What is the cost of renting for 3.5 days?

\$40

4) If you rented for 3.5 days and paid 7% tax on the rental, what would you pay?

A long-distance call to a city in Europe has a initial cost of \$4.50 for the first minute. The cost increases by \$0.50 for each additional minute. There is only a cost increase for full minutes. The graph below illustrates the pricing.



1.) What is the cost of a 5-minute-40-second call?

\$6.50

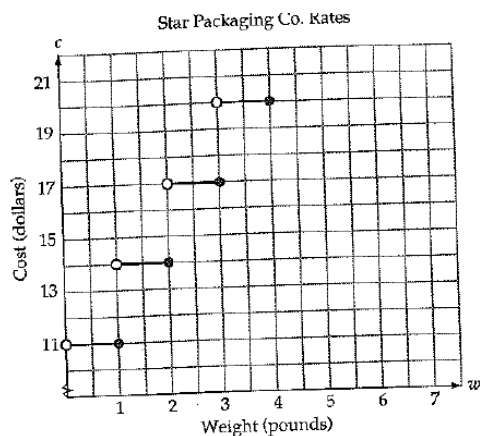
2.) What is the cost difference between a 3-minute call and an 8-minute call?

\$1.00

3) If you paid \$7.50 for a phone call, how many minutes did the call last?

6.5 minutes or 7

### 4.3C Evaluating Piecewise functions.notebook



1) What does (4, 20) mean?

2) What is the cost of shipping a 2.8 pound package?

3) What is the cost of shipping a package weighing  $\frac{1}{3}$  lbs.

4) If a package cost \$14 to ship, how much did it weigh?



$$h(x) = \begin{cases} x^2 - 4, & x < 3 \\ \frac{2}{3}x - 5, & x \geq 3 \end{cases}$$

Evaluate the following:

$h(2)$

$h(6)$

$h(-6)$

$h(3)$