**5-2** MorePiecewise-Defined Functions WS

**1.** Match each piecewise-defined function with its graph.













**2.** Describe the error Bart made when graphing the piecewise-defined function  
shown. Graph the function correctly.



**3.** Write a piecewise-defined functions that describes  
the graph shown.

**4.** A DJ is shopping for cloud storage for his music collection. He finds an online  
data storage cloud with the following monthly charges per GB (or fraction  
thereof): $0.29/GB for 0 < *x* ≤ 25 GB, $0.26/GB for 25 < *x* ≤ 50 GB, $0.23/GB for  
50 < *x* ≤ 75 GB, and $0.20/GB for *x* > 75 GB. What is the difference in price for  
storing just the 75 GB and for storing 75 GB plus a new music collection that is  
1 GB or less?

**Write each absolute value function as a piecewise–defined function.**

**5.** *f*(*x*) = 7|*x*| **6.** *g*(*x*) = −|*x*| **7.** *h*(*x*) = 9|*x*|

**Part I**. Carefully graph each of the following. Then evaluate the function at the specific value.

**8.**   **9.** . 



 

**10.**   **11.** . 

 

**12.**   **13. **

**14.** Find the average rate of change for the interval from  for problems 12 & 13 above.