

U2 D2 Practice #2 KEY

Monday, January 18, 2021

7:45 PM



U2 D2
Practice...

Your favorite dog groomer charges according to your dog's weight. If your dog is **15** pounds and under, the groomer charges **\$35**. If your dog is between **15** and **40** pounds, she charges **\$40**. If your dog is over **40** pounds, she charges **\$40**, plus an additional **\$2** for each pound.

- (a) Write a piecewise function that describes what your dog groomer charges.
- (b) Graph the function.
- (c) What would the groomer charge if your cute dog weighs **60** pounds?

$$(a) f(x) = \begin{cases} 35, & 0 \leq x < 15 \\ 40, & 15 \leq x \leq 40 \\ 40 + 2(x - 40), & x > 40 \end{cases}$$



$$(c) f(x) = 40 + 2(60 - 40) \\ = 40 + 2(20) = \boxed{\$80}$$

