HKUSTx: ELEC1200.1x A System View of Communications: From Signals to Packets (Part 1)

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9.2 QUIZ QUESTION 1 (1/1 point)

Assuming that a laptop's average power consumption is 30 watts and that it is powered by the battery shown below, how long do you predict the laptop would operate for if the battery starts out fully charged?

Please select the correct answer.

- ◯ 11 hours
- ◯ 4.4 hours
- ⦿ 1.6 hours ✔
- ◯ 1.1 hours

(Image reference: http://en.wikipedia.org/wiki/Lithium-ion_battery#mediaviewer/File:Li_ion_laptop_battery.jpg)

EXPLANATION

We first calculate the amount of energy in a battery using the information given in the picture as
$11.1V \times 4400mAh = 48.84Wh$ or read it off directly as 49Wh.

$$\text{usable time} = \frac{\text{energy}}{\text{power consumption}}$$
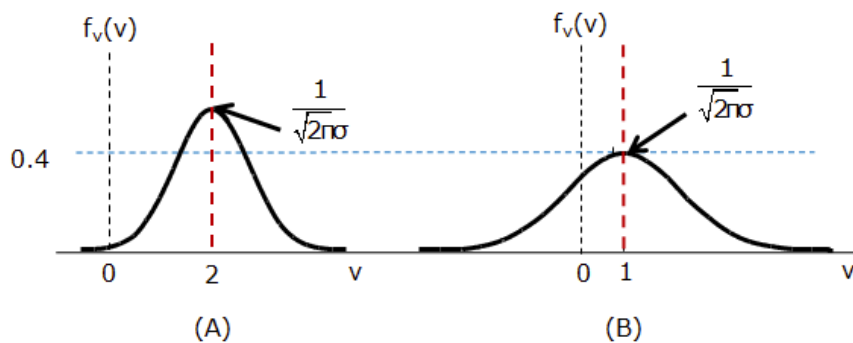$$= \frac{49\text{Wh}}{30\text{W}} \approx 1.6\text{hours}$$

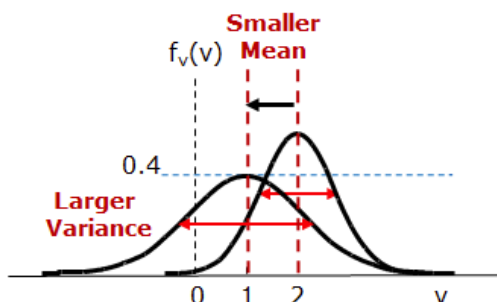| Check	Save	Hide Answer	*You have used 1 of 3 submissions*

9.2 QUIZ QUESTION 2 (1/1 point)

Consider the two probability density functions (PDFs) shown below. Which one of the following statements is correct?

Please select the correct answer.

- PDF (B) has a larger mean and smaller variance than PDF (A).
- PDF (B) has a larger mean and larger variance than PDF (A).
- PDF (B) has a smaller mean and smaller variance than PDF (A).
- ● PDF (B) has a smaller mean and larger variance than PDF (A). ✔

EXPLANATION

Final Check   Save   Hide Answer   *You have used 1 of 2 submissions*

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