



# LESSON 30

MA 16100 • FALL 2022

DR. HOOD



# WARM UP

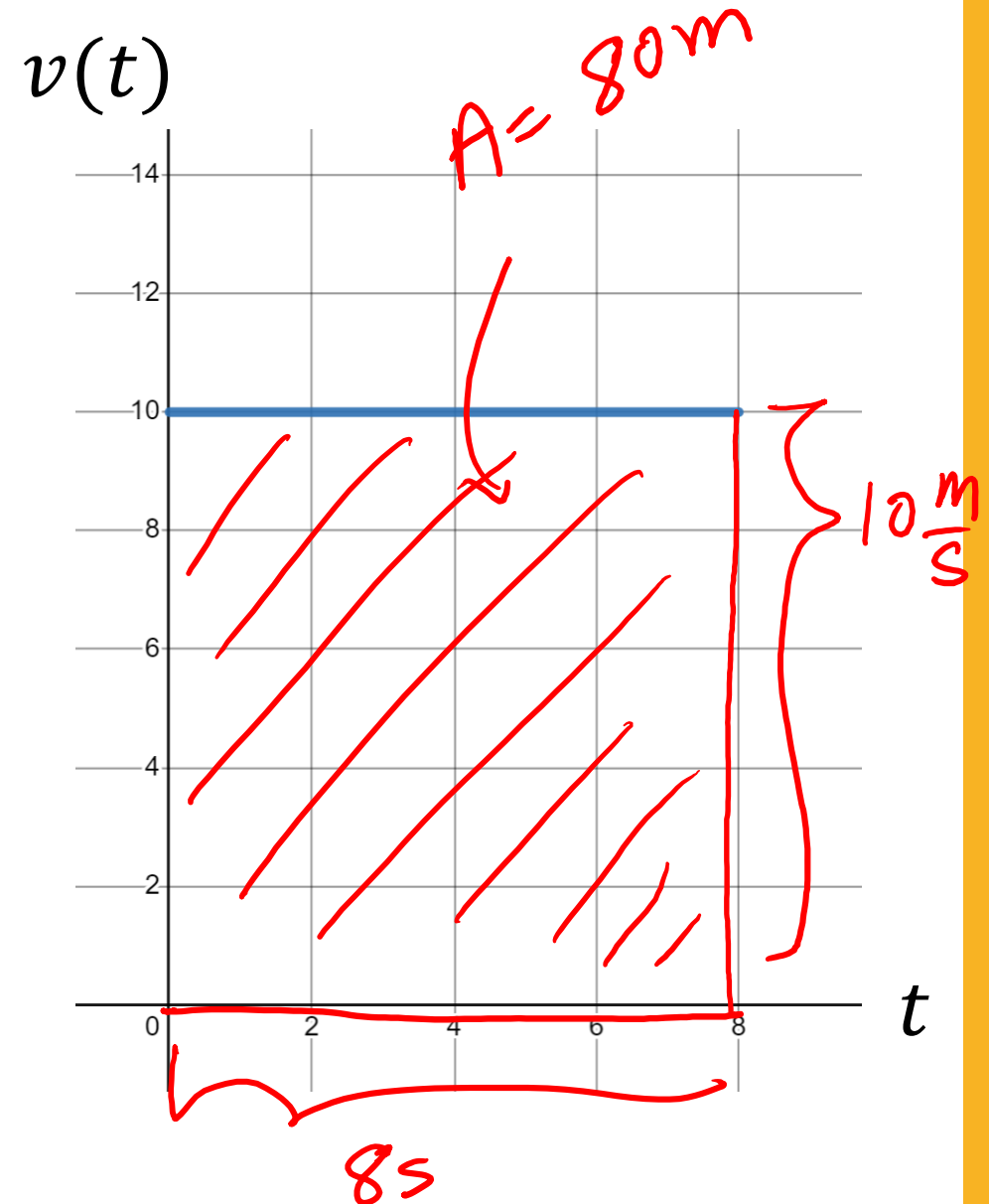
A car travels with constant velocity 10 m/s for a length of 8s. How far does the car travel?

a) 1.25 m

b) 80 m

c) 8 m

$$\begin{aligned} \text{distance} &= \\ & \text{velocity} \times \text{time} \\ &= 10 \frac{\text{m}}{\text{s}} \times 8\text{s} \\ &= 80\text{m} \end{aligned}$$



# ANNOUNCEMENTS

- Extension on HW28 and HW29
  - Now due tonight, Nov 9 at 11:59pm
  - Pearson outage last night – resolved by 6:43am today
  - Pearson should be working now

# ANNOUNCEMENTS

- Dr. Hood's Office Hours in Math 844
  - Mon, Wed: 3:30-4:30pm
  - Fri: 2:30-3:30pm
- TA's Office Hours in [Math Resource Room](#) (WTHR 313)
  - Mon – Thu: 9:30am – 8:30pm
  - Fri: 9:30am – 3:30pm

# EXAM 3

- Exam 3 is Tuesday Nov 15 at 6:30 – 7:30pm in ELLT
- Supplemental Instruction Exam 3 Review Session
  - Sun Nov 13 at 6:30-7:30pm in LILY G129
- Brightspace > “Content” > “Exam 3”
  - Study Guide, Frequently Asked Questions, Exam Conflict Form

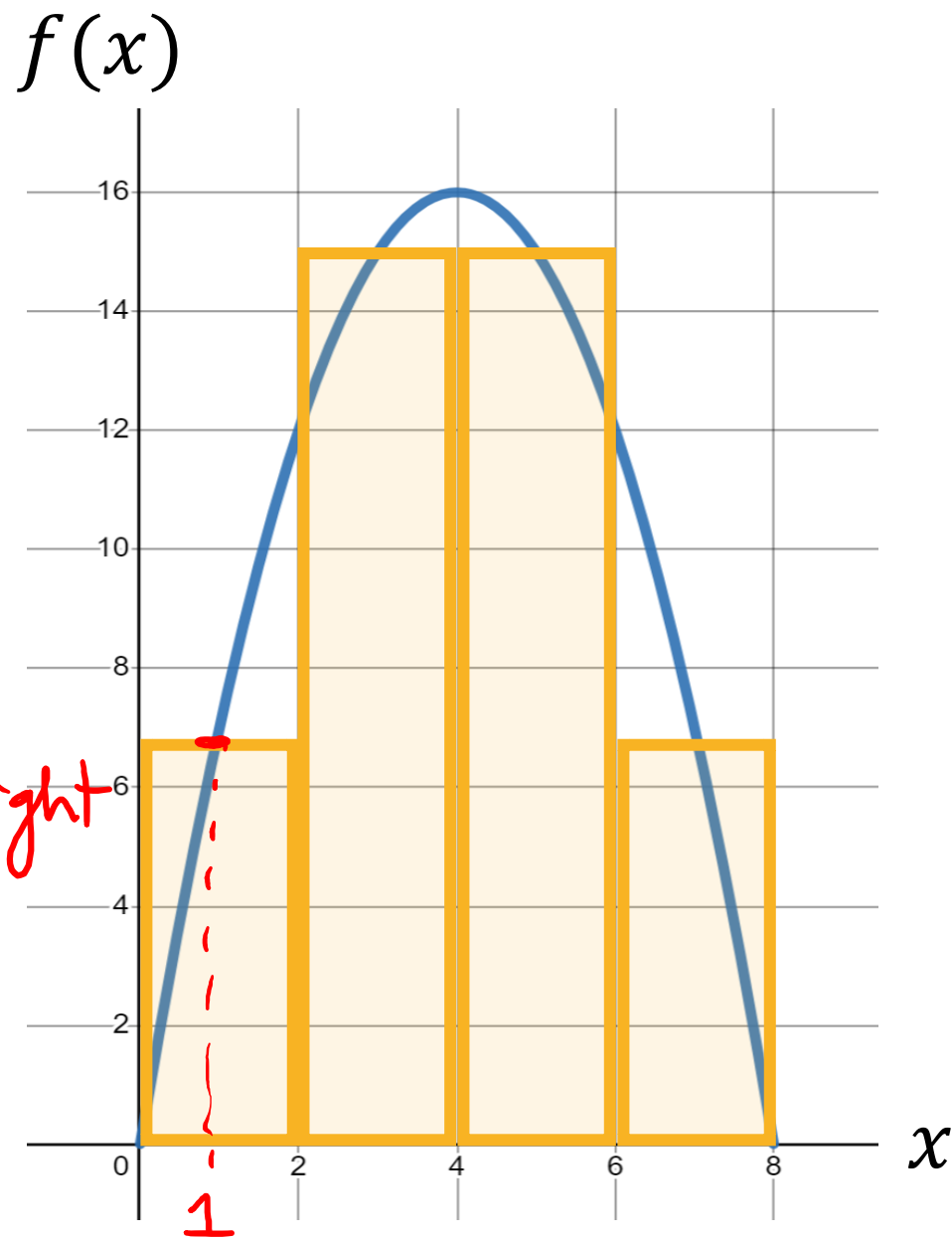
# THANKSGIVING BREAK

- Thanksgiving Break
  - University Holiday is Wed Nov 23 – Fri Nov 25
  - MA 161 additional breaks:
    - No class on Mon Nov 21
    - No recitation on Tue Nov 22
    - No HW or Quizzes that week
    - No Office Hours on Mon Nov 21
    - Math Resource Room closed Mon Nov 21 – Fri Nov 25

# POLL 1

Write down the formula for the midpoint Riemann sum for  $n = 4$  on  $[0,8]$ .

- left*
- a)  $f(0)\Delta x + f(2)\Delta x + f(4)\Delta x + f(6)\Delta x$  *right*
- b)  $f(2)\Delta x + f(4)\Delta x + f(6)\Delta x + f(8)\Delta x$
- c)  $f(1)\Delta x + f(3)\Delta x + f(5)\Delta x + f(7)\Delta x$



L

R<sub>4</sub>

M<sub>4</sub>

# POLL 2

Evaluate the sum:

$$\sum_{k=0}^4 k \sin\left(\frac{k\pi}{4}\right)$$

$$\begin{aligned} &= 0 \cdot \sin(0) + 1 \cdot \sin\left(\frac{\pi}{4}\right) \\ &\quad + 2 \cdot \sin\left(\frac{2\pi}{4}\right) \\ &\quad + 3 \sin\left(\frac{3\pi}{4}\right) + 4 \sin\left(\frac{4\pi}{4}\right) \\ &= \frac{\sqrt{2}}{2} + 2 \cdot (1) + 3 \left(\frac{\sqrt{2}}{2}\right) \\ &= 2 + \frac{4\sqrt{2}}{2} = 2 + 2\sqrt{2} \end{aligned}$$

a)  $1 + \sqrt{2}$

b)  $2 + \sqrt{2}$

c)  $2 + 2\sqrt{2}$