

MATH 1B DISCUSSION WORKSHEET - 9/18/18

CHAPTER 8 REVIEW SHEET

1. ARC LENGTH

1.1. What is it?

1.2. Formulas to know.

- $L = \int_a^b ds$
- $ds =$
- $ds =$
- $s(t) =$

1.3. Things to Remember.

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2. AREA OF THE SURFACE OF A REVOLUTION

2.1. What is it?

2.2. Formulas to know.

- Rotation about the line $y = c$ (Parallel to which axis?): $S =$
- Rotation about the line $x = d$ (Parallel to which axis?): $S =$

2.3. Things to Remember.

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3. HYDROSTATIC FORCE AND PRESSURE

3.1. What is it?

3.2. Formulas to know.

- $F = \int PA$ [What do the variables stand for?]
- $P = \rho gd$ [What do the variables stand for?]
- $d =$
- $A =$

4. MOMENTS AND CENTERS OF MASS

4.1. What is it?

4.2. Formulas to know.

- $M =$
- $M_x =$
- $M_y =$
- $(\bar{x}, \bar{y}) =$
- Theorem of Pappus:

5. CONSUMER SURPLUS

5.1. What is it?

5.2. Formulas to know.

- $P = p(x)$ [What do each of the letters mean?]
- Consumer Surplus =

6. BLOOD FLOW

6.1. What is it?

6.2. Formulas to know.

- Flux (F) =

7. CARDIAC OUTPUT

7.1. **What is it?**

7.2. **Formulas to know.**

- Flow (F) =

7.3. **Things to Remember.**

8. PROBABILITY DENSITY FUNCTIONS

8.1. **What is it?**

8.2. **Formulas to know.** For some probability density function f on a distribution X ,

- $P(a \leq X \leq b) =$
- $\int_{-\infty}^{\infty} =$

8.3. **Things to Remember.**

9. AVERAGE VALUES

9.1. **What is it?**

9.2. **Formulas to know.** For some probability density function f on a distribution X ,

- $\mu =$

10. NORMAL DISTRIBUTIONS

10.1. **What is it?**

10.2. **Formulas to know.** A normal distribution with mean μ and standard deviation σ has a PDF of

- $f(x) =$