

## 1. CHAPTER 1

- Angles in standard position.
- Definition of the 6 trig functions
  - Given a point on the terminal ray, find the 6 trig functions of the angle
  - Given on function of the angle and the quadrant, find the other functions.
- Trig function of an acute angle from a right triangle.
- Complementary angles and cofunctions.
- Trig functions of  $30^\circ$ ,  $45^\circ$  and  $60^\circ$ .

## 2. CHAPTER 2

- Approximations and significant figures.
- Manipulations with significant figures.
- Accuracy in sides and angles of a triangle
  - The range covered by an approximation.
- Related angles.
  - Trig functions of special, non-acute, angles.
- Trig functions of the negative of an angle.

## 3. CHAPTER 3

- Solving Right triangles
- Bearing, angles of elevation and depression.
  - Exercise 3.2
- Vectors
  - Exercise 3.3
- Law of Sines
- Law of Cosines
- Solving oblique triangles, SAA, SAS and SSS.
  - Exercise 3.4, 3.5
- The area of a triangle.

## 4. CHAPTER 4

- Radian measure, conversion between radians and degrees.
- Length of a circular arc,  $s = r\theta$ .
- Linear and angular velocity,  $v = r\omega$ .
  - Exercise 4.2, 4.3.

## 5. CHAPTER 5

- Basic trigonometric relations.
- Algebraic identities.
- Resulting trig identities
  - Exercise 5.3

## 6. CHAPTER 6

- Formulas for  $\sin(A \pm B)$ ,  $\cos A \pm B$  and  $\tan(A \pm B)$ .
- Double angle formulas.
- Half angle formulas.

- Compute trig functions of specific angles, like 22, 23 on p. 119
- Verify identities.
- Write  $a \sin(\theta) + b \cos(\theta)$  in the form  $k \sin(\theta + H)$  or  $k \cos(\theta + H)$ .
- Skip section 6.6

## 7. CHAPTER 7

- Solving trig equations algebraically, emphasize find *all* solutions in  $0 \leq \theta < 2\pi$ .

## 8. CHAPTER 8

- Graphs of the trig functions.
- $y = a \sin(bx + c)$ , period, amplitude, shift.

## 9. CHAPTER 9

- Definition, domain and range and graphs of the inverse trig functions.
  - Inverse trig functions of specific numbers.
  - Operations with inverse trig functions, e.g.  $\sin(\tan^{-1}(x))$ .

## 10. CHAPTER 11

- Parametric equations
  - Eliminate the parameter and graph.
- Polar Coordinates, conversions
- Sketching graphs in polar coordinates.

## 11. CHAPTER 12

- Complex numbers
- Operations on complex numbers in rectangular form  $a + bi$ .
- Polar form, multiplication in polar form.
- DeMoivre's Theorem, finding complex roots.

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