Section 2.3
Finding Trig Values Using a Calculator

Sine, Cosine, and Tangent

1. Compute the following trigonometric function values:

   (i) $\sin(52°)$

   (ii) $\cos(187.48°)$

   (iii) $\tan(-2000°)$

2. Compute the following trigonometric function values of degrees in DMS. You can either convert DMS to DD using a calculator, or input DMS directly if your calculator supports it.

   (i) $\sin(187°44')$

   (ii) $\cos(-225°32'11'')$

   (iii) $\tan(1500°22'38.95'')$

THE OTHER TRIGONOMETRIC FUNCTIONS

3. Most calculators only have sin, cos, and tan. Use the *reciprocal identities* to calculate trigonometric function values for the other guys.

   (i) $\sec(52°)$

   (ii) $\cot(187°)$

   (iii) $\csc(-225°32'11'')$

   (iv) $\cot(1500°22'38.95'')$

INVERSE TRIGONOMETRIC FUNCTIONS

4. For the following, find an approximate value for θ where the trigonometric function yields the given value.

   (i) $\cos\theta = 0.87$

   (ii) $\sin\theta = -0.53$

   (iii) $\tan\theta = 1.115$

5. Like before, most calculators only have the inverse trigonometric functions for sin, cos, and tan. Use the *reciprocal identities* to calculate the inverse for the other trigonometric functions. Again, find an approximate value for θ where the trigonometric function yields the given value.

    (i) $\sec\theta = 2.54$

    (ii) $\csc\theta = -2.6$

    (iii) $\cot\theta = 12.5$