Do the problems from the review problems page as if you were taking a test: without notes or textbook, and give yourself a time limit as stated at the start. At the end of that time, check your answers. Then review as needed before you redo the self-test. The answers and partial solutions will be posted on the course blog and will tell you which section each problem comes from.

Self-Test A: allow 50 minutes. Time yourself. Then check your answers and review as needed.

1) If $\tan(\theta) = -\frac{5}{12}$ and $\cos\theta > 0$, find the quadrant, and then find the values for the other five trig functions of θ. (You do not need to find θ.)

2) Given that a triangle has $C = 40\,^\circ$, $a = 6$ and $c = 10$, draw the triangle ABC, label including the given information, and then find the angle A to the nearest tenth.

3) Solve the trig equation for x in $[0, 2\pi)$ by using the unit circle and reflections, as we did in class: you must show and explain how you got your solutions.

a) $2\cos(x) + 1 = 0$

b) $\sin(x) = 1$

c) $\tan(x) = 1$

4) Solve the equation for t in the first cycle, as we did in the Application in class: show all work, including use of the unit circle, and **explain in words** what you are doing at each step.
$0 = 6\sin(40\pi t)$

Self-Test B: allow 50 mintues. Time yourself. Then check your answers and review as needed.

1) If $\cos(\theta) = -\frac{2}{3}$ and $\tan\theta > 0$, find the quadrant, and then find the exact values of the other five trig functions of θ.

2) Given that a triangle has $C = 85\,^\circ$, $a = 8$ and $b = 6$, draw the triangle ABC, label including the given information, find the length c to the nearest tenth.

3) Solve the trig equation for x in $[0, 2\pi)$ by using the unit circle and reflections, as we did in class: you must show and explain how you got your solutions.

a) $2\sin(x) = \sqrt{2}$

b) $\cos(x) = -1$

c) $3\tan(x) = -\sqrt{3}$

4) Solve the equation for t in the first cycle, as we did in the Application in class: show all work, including use of the unit circle, and **explain in words** what you are doing at each step.
$3 = 6\sin(40\pi t)$