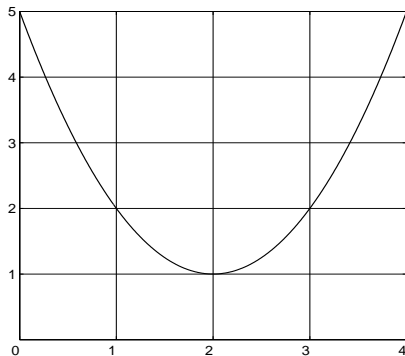
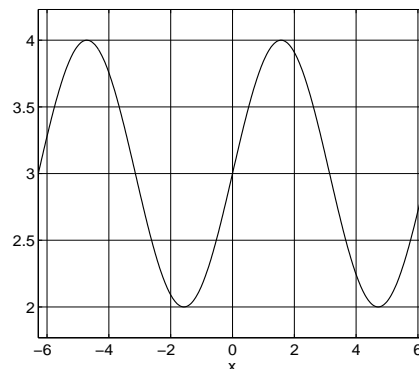


A quiz on Preliminary Material will be held the first Friday of class, and will cover Part 3 of the Student Handbook. You should *memorize* all the formulas that the handbook says to memorize. Calculators will not be allowed. For extra review of trigonometry see Appendix D of the textbook. A review of algebra is available on the textbook web site: www.stewartcalculus.com. Below are some Sample Questions:

- $\sin \pi/6 = ?$ (a) 0 (b) 30° (c) $\sqrt{3}/2$ (d) $1/2$ (e) $\sqrt{2}/2$
- Which of the following equals $\frac{e}{(e^{-1} - e^{-2})^{-2}}$?
 (a) $e^3 - e^5$ (b) $e^{-1} - e^{-2}$ (c) $e^3 - 2e^4 + e^5$ (d) $e^{-2} - 2 + e^{-3}$ (e) $e^{-1} - 2e^{-2} + e^{-3}$
- What is the volume of a sphere in terms of its radius, r ?
- Solve $y = \frac{x+2}{x+3}$ for x in terms of y .
 (a) $x = \frac{-3y+2}{y-1}$ (b) $x = -2$ (c) $x = 1 + \frac{2}{3}$ (d) $x = \frac{y+2}{y+3}$ (e) $x = \frac{y-2}{y-3}$
- Find the slope-intercept equation of the line that passes through the point $(3, 5)$ and is parallel to the line $y = 2x + 7$.
 (a) $y = 3x + 5$ (b) $y = 2x - 1$ (c) $y = 2x + 5$ (d) $y = 2x + 2$ (e) $y = 3x + 7$
- Use the technique of *completing the square* to rewrite $y = x^2 + 6x + 11$ in the form $y = (x + h)^2 + k$, if possible. (No partial credit.)
- Which function corresponds to the graph (1) below?
 (a) $y = (x-2)^2 + 1$ (b) $y = (x+2)^2 + 1$ (c) $y = (x+1)^2 + 4$ (d) $y = (x-1)^2 = 4$ (e) $y = x^2 + 5$
- Which function corresponds to the graph (2) below?
 (a) $y = \sin(3x+4)$ (b) $y = \sin(3x)+4$ (c) $y = 4 \sin(x+\pi)$ (d) $y = 3 \sin(x)$ (e) $y = \sin(x)+3$



(1)



(2)