

Assignment R

This review assignment is due the first day of class. If the assignment seems difficult, then consider refreshing your math 12 skills with either MATH 115 or the short online Prep for Math 100 course at <https://sites.google.com/site/mathchaircamosun/home/ALEKS-prep-courses>

No calculators. Show all of your work in the space provided.

1. Factor: $8x^2 + 10x + 3$

2. Expand: $(x + 2)^3$

3. Solve: $x^3 + 3x^2 - x = 3$

4. Simplify: $\frac{\frac{8}{x+h} - \frac{8}{x}}{h}$

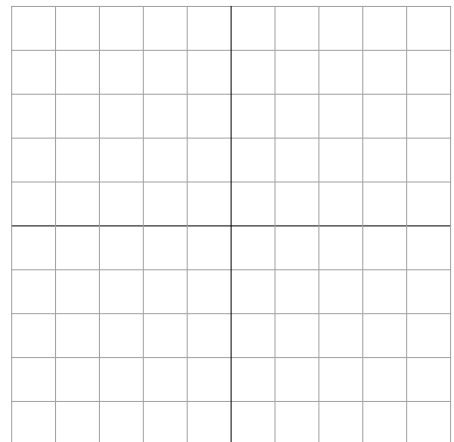
5. Simplify: $\frac{(9a^3)^{\frac{5}{2}}}{27a^{-\frac{1}{3}}}$

6. What is the domain of $f(x) = \frac{1}{\sqrt{x^2 - 4}}$?

7. Expand and simplify: $\log_3(3x^3 \cdot 3^x)$

8. If $f(x) = \cos x$, evaluate $f\left(f\left(\frac{\pi}{2}\right)\right)$.

9. Graph $f(x) = 3\sin 2x$. State the period and amplitude.



10. Solve: $\cos 2x + \sin x = 0$, $0 \leq x < 2\pi$

