

Math&141 - Final Exam Review - *Answers*

1. $(x + 2)^2 + y^2 = 100$

2. (a) 3

(b) $6a + 3h - 12$

(c) -11

3. $g(x) = -|x + 2| - 3$

4. (a) 2

(b) $x^3 - 5x$

(c) $3x^4 - 6x^2$

(d) 12

(e) 204

5. $f(x) = \sqrt{x}$, $g(x) = x^3 - 2$ or $f(x) = \sqrt{x - 2}$, $g(x) = x^3$

6. (a) $f^{-1}(x) = \sqrt[5]{\frac{x-2}{3}}$ (b) $g^{-1}(x) = \ln\left(\frac{x}{2}\right)$

7. $3x^2 - 6x + 11 + \frac{-2}{x+2}$

8. The answer is a graph, which I'm not tech-savvy enough to display here, but here's some important info to show: x -intercept: $(-4, 0)$; y -intercept: $(0, -\frac{1}{3})$; VAs: $x = -2$ and $x = 6$; HA: $y = 0$.

9. 1.6720

10. $m(t) = 100e^{-.034657t}$

11. (a) \$929.47

(b) about 13.9 years

12. (a) -.226

(b) 102

(Answers to suggested textbook problems are in the back of the book.)