

Review 4.1 - 4.3

① 64 ② 9 ③ $\frac{27}{64}$ ④ $\frac{1}{5}$ ⑤ 2^{16} ⑥ $\frac{1}{8}$ ⑦ $\frac{9}{4}$ ⑧ 4

⑨ $x = \frac{4}{3}$ ⑩ $x = \frac{7}{3}$ ⑪ Vert stretch by 3, up 1, right 2

⑫ Reflect over x-axis, down 2, left 5

⑬ d ⑭ b ⑮ c ⑯ a ⑰ e^9 ⑱ 1 ⑲ e^5

⑳ e^4 ㉑ e^6 ㉒ e^{-5} ㉓ $e^{\frac{9}{2}}$ ㉔ e^{5x+3} ㉕ $x = -\frac{3}{2}$ ㉖ $x = 2$

㉗ $f'(x) = 6e^{2x}$ ㉘ $f'(x) = 4e^{x+1}$ ㉙ $f'(x) = (3x^2 - 6x)e^{x^3 - 3x^2 + 1}$

㉚ $f'(x) = 9e^{3x}(e^{3x} + 2)$ ㉛ $f'(x) = \frac{-3e^x}{(e^x + 1)^2}$ ㉜ $f'(x) = x^2 e^{x^2} (2x^2 + 3)$

㉝ $f'(x) = \frac{-e^{-x}(x+2)}{(x+1)^2}$

㉞ $f'(x) = (3x^2 + 11x + 9)e^{3x-4}$ ㉟ $f'(x) = 2e^{2x}(x-3)(x-2)$

㊱ $f'(x) = \frac{-(2x+1)}{x^2 \cdot e^{2x}}$

㊲ $A'(3) = -12.22 \text{ g/yr}$ ㊳ $g'(24) = .135 \frac{\text{units}}{\text{mo}}$

㊴ \$9291.78 ㊵ \$9294.67 ㊶ \$15,884.38

㊷ \$11.32