ANSWER PRESENTATION TOOL

Algebra 2 - Student Editic 5 Chapter Test 1-14 ALL EVEN ODD Show Solu

1. $3 \le x \le 12$; $x = 12$; In each process the same operations are used but when solving the inequality you must check the domain for values that make the radicand negative.

2. The graph of g is a translation 3 units right of the graph of f; $g(x) = \sqrt{x - 3}$

3. The graph of g is a vertical stretch by a factor of 2 followed by a reflection in the x-axis of the graph of f; $g(x) = -2\sqrt[3]{x}$

4. The graph of g is a vertical stretch by a factor of 2 followed by a translation 2 units up of the graph of f; $g(x) = 2\sqrt[5]{x} + 2$

5. 16; The cube root of 64 is 4 and 4^2 is 16.

6. -243; The cube root of -27 is -3 and $(-3)^5$ is -243.

7. $2y^2\sqrt[4]{3xy^3z^3}$; The fourth root of 16 and y^8 can be simplified.

8. 2; The radical can be simplified to $\sqrt[3]{8}$.

9. *Sample answer:* $y = \sqrt{x - 4}$; $y = \sqrt{x} - 2$

10. $a = 200 - \frac{h}{0.9}$; 160

11. rabbit: about 145.7 kilocalories per day; sheep: about 1378 kilocalories per day; human: about 1774 kilocalories per day; lion: about 4044 kilocalories per day

12. $(f + g)(x) = 5x^{3/5}$ and the domain is all real numbers;
$(f - g)(x) = 7x^{3/5}$ and the domain is all real numbers;
$(f + g)(32) = 40$; $(f - g)(32) = 56$

13. $(fg)(x) = 4x^{7/4}$ and the domain is $x \geq 0$; $\left(\frac{f}{g}\right)(x) = \frac{1}{16x^{1/4}}$ and the domain is $x > 0$; $(fg)(16) = 512$; $\left(\frac{f}{g}\right)(16) = \frac{1}{32}$

14. $s = 8\sqrt{h}$; about 13.9 ft/sec