***Pre-Calculus 11***

***Unit 2: Absolute Value and Radical***

***Worksheet 2.5 – Solving Radical Equations***

1. Solve each equation algebraically, without a calculator, and verify the solution.
2.  b)  c) 

d)  e)  f) 

g)  h)  i) 

j)  k)  l) 

m)  n)  o) 

p)  q)  r) 

1. Solve each equation algebraically.
2.  b)  c) 
3. The Sun approximates a sphere of radius 695,800 *km*.
4. The formula for the surface area of a sphere is . To the nearest kilometer, determine the edge length of a cube that would have the same surface area as the Sun.
5. The formula for the volume of a sphere is . To the nearest kilometer, determine the edge length of a cube that would have the same volume as the Sun.
6. \* Determine the root of each equation algebraically.
7.  b)  c) 
8.  e)  f) 

g)  h)  i) 

j) 

1. \*\* Solve the following equation exactly.
2.  b) 

c)  d) 

***Solutions***

1. a) 32 b) –4 c) 12 d) 18 e)  f) 5 g) 22

h) –6 i)  j) *dne*  k) 4 l) –14 m)  n) 

o) *dne* p)  q)  r) 

1. a) 6 b)  c) 13

3. a) 1,006,964 *km* b) 1,121,624 *km*

1. a) 26 b) –6 c) 27 d) 3 e) –4 f) 29 g) 

h) 8 i) 41 j) 25

5. a)  b) 9 c)  d) 8