### Lesson 3 Practice Problems

1. Complete the table. Use powers of 64 in the top row and radicals or rational numbers in the bottom row.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
| * 64 |  | * 4 |  |  |  |

1. Suppose that a friend missed class and never learned what means.
   1. Use exponent rules your friend would already know to calculate .
   2. Explain why this means that .
2. Which expression is equivalent to ?
   1. 4
   2. 8
   3. 16.5
3. Select **all** the expressions equivalent to .

* (From Unit 3, Lesson 1.)

1. The table shows the edge length and volume of several different cubes. Complete the table using exact values.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| * **edge length (ft)** | * 3 |  |  |  |  |  |
| * **volume (ft3)** |  | * 64 | * 85 |  | * 125 |  |

* (From Unit 3, Lesson 2.)

1. A square has side length cm. What is the area of the square?
   1. 9.05 cm2
   2. 82 cm2
   3. 164 cm2
   4. 6724 cm2

* (From Unit 3, Lesson 2.)



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