

Unit 2: Performance Task #2

Standards: 7.NS.1, 7.NS.2, 7.NS.2.A, 7.NS.2.B, 7.NS.2.C, 7.NS.3

1. A water well drilling rig has dug to a height of -60 feet after a 24-hour period of continuous use. If the rig is currently at a height of -143.6 feet, how long has the rig been running?

- a. Create an expression using the division of rational numbers to determine the solution. Be sure to use the correct units:

- b. If the rig drilled at a constant rate within the 24-hour period, how many has it been running if it is currently at a height of -143.6 feet? How many hours? Write both solutions in decimal form, using the correct units:

- c. Alternately, write both solutions from *part b* in fractional form, using the correct units:

2. Use a horizontal number line to model the time at which the rig was at a height of 37.5 feet, from Performance Task #1, versus the time at which the rig was at a height of 143.6 feet.



3. If the rig drilled to a height of -60 feet in 24 hours then increased its height by -7.4 feet and finally decreased its height by 23 feet, what would be its resting height?

