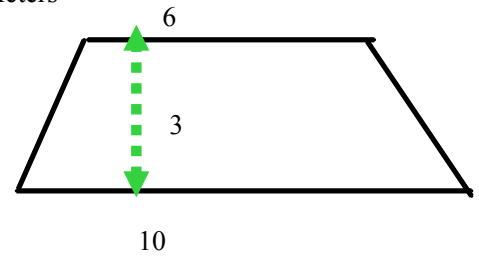


Units are in Meters




first a little refresher on Exponents

10^2 is 10×10 which is 100

10^3 is $10 \times 10 \times 10$ which is 1000

10^4 is $10 \times 10 \times 10 \times 10$ which is 10,000
and so on.

10000

 Scientific_Notation__Using_Exponents_to_Represent_Large_Numbers.mov

Open attachments tab to locate video file

Let's put something together here.

$$2.1 \times 100,000 = 210,000.$$

I can simply move the decimal over 5 places since there are five 0's.

rewritten using scientific notation we can write the above number like

$$2.1 \times 10^5$$

21.0
0.21
2.1

Rule: There must be one digit to the left of the decimal point to be in scientific notation.

..
Convert this to scientific notation.

.
 $340,000 = 3.4 \times 10^5$

$$3.4 \times 100,000$$

·
 $34,123.5$

$$3.41235 \times 10^4$$

$$0.0000012$$

.
 1.2×10^{-6}

Convert this to standard form

$$1.2 \times 10^{-8} = 0.000000012$$

.

$$2) 3.0500000.$$

$$4) \begin{array}{c} 000004013 \\ \underbrace{\hspace{1.5cm}} \\ 4.013 \times 10^{-5} \end{array}$$

WS FROM 3.2 LABELED EXTRA PRACTICE