Grade 12 Earth and Space Science
SES4U

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September 11, 2025

Contents

Chapter 1

Unit 1: Astronomy

1.1 Measuing the Universe

1.1.1 Some important constants

The speed of light c:

$$c = 3.00 * 10^8 \frac{m}{s}(3SD)$$

The distance of a light year:

$$\text{A light year} = 9.4608 * 10^{15} m (3SD)$$

The distance between Earth and Sun refers to the *Astronomicial Unit (AU)*

$$AU = 1.4958 * 10^{11} m (3SD)$$

One Parsec is

$$\text{Parsec} = 3.0824 * 10^{16} m (3SD)$$

1.1.2 Unit Conversion

Example. If 1 inch $= 2.54$ cm, then 4.5 inches is equivalent to how many cm?

$$4.5 \text{ inch } * \frac{2.54 cm}{1\ inch} = 11.43 \ cm$$

$\therefore 1\ inch = 11.43cm$