**Lesson 5.6b Constant of Proportionality**

**EQ: What is the constant of proportionality and how do we find it from a graph or table?**

**Constant of Proportionality:** the ratio between two directly proportional quantities.

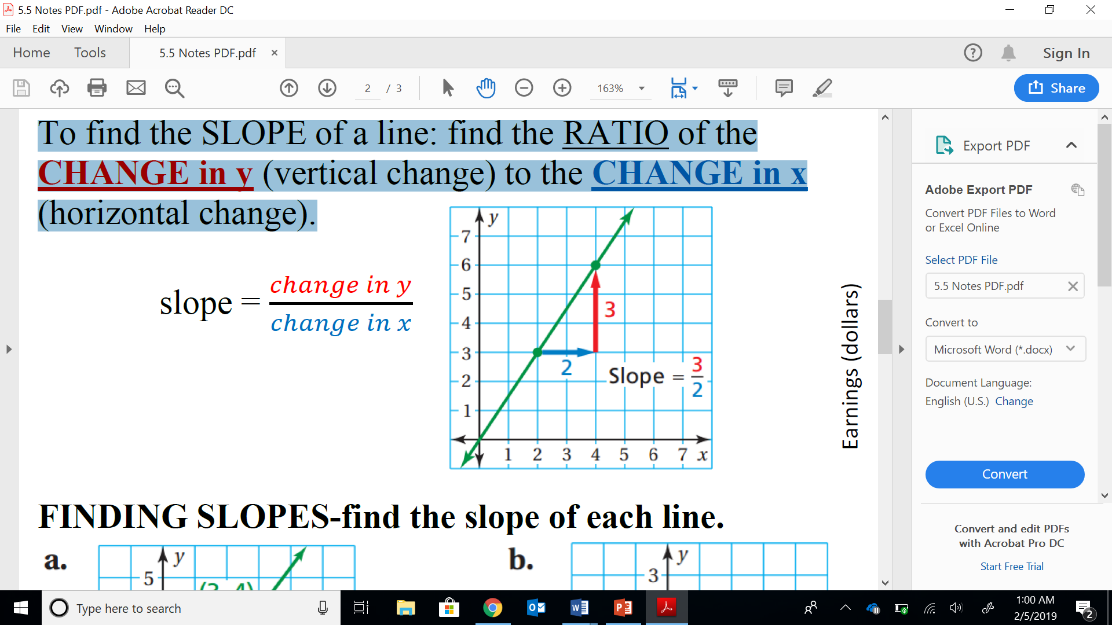
**Slope**-The rate of change between any two points on a line.

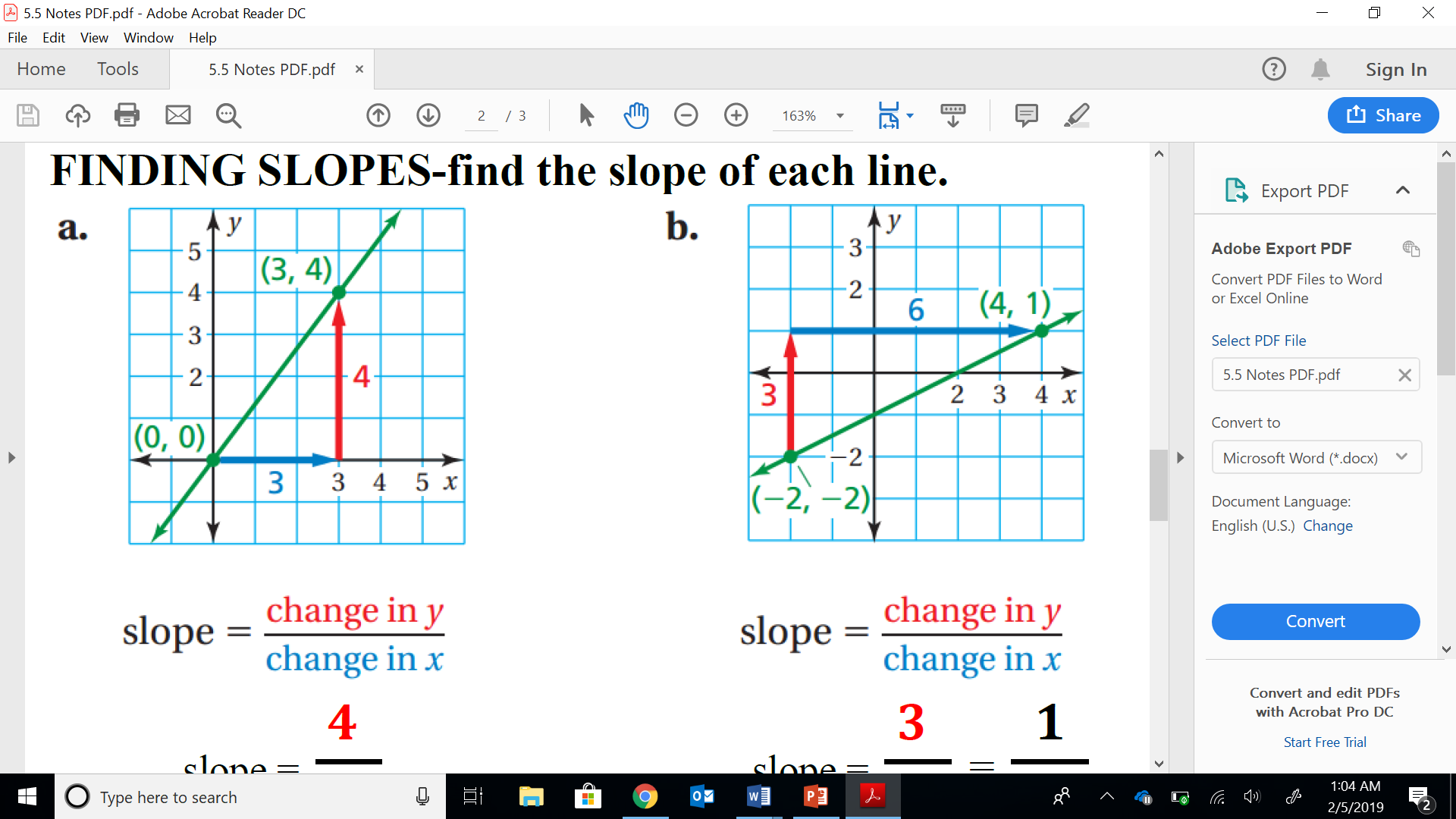
It is a measure of the **STEEPNESS of a line**.

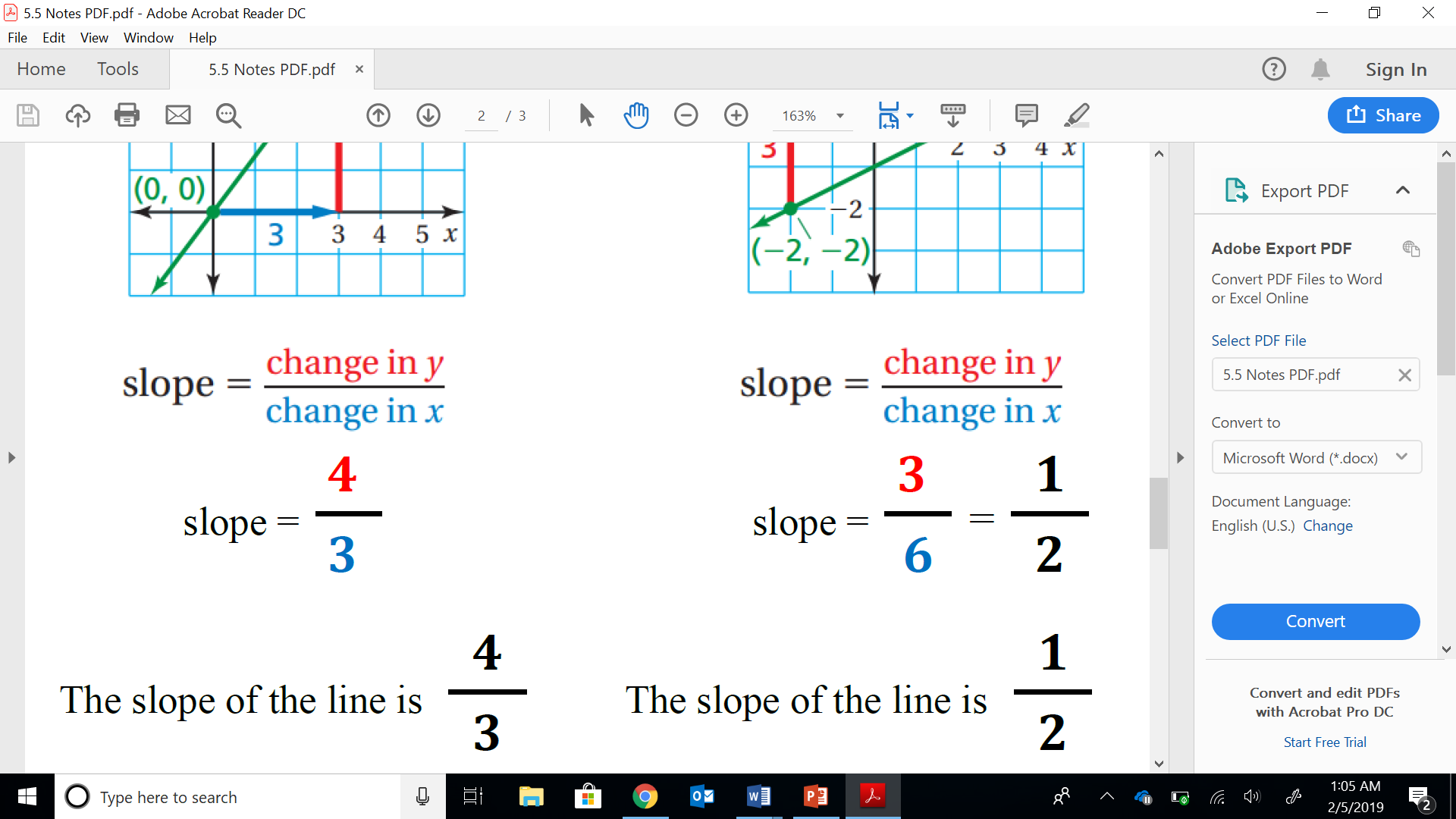
**REMEMBER**- a RATE is a RATIO!

**Finding SLOPE/Constant of Proportionality from a Graph:**

Find the RATIO of: **CHANGE in y** (vertical change) **over** the **CHANGE in x** (horizontal change).

EX1:





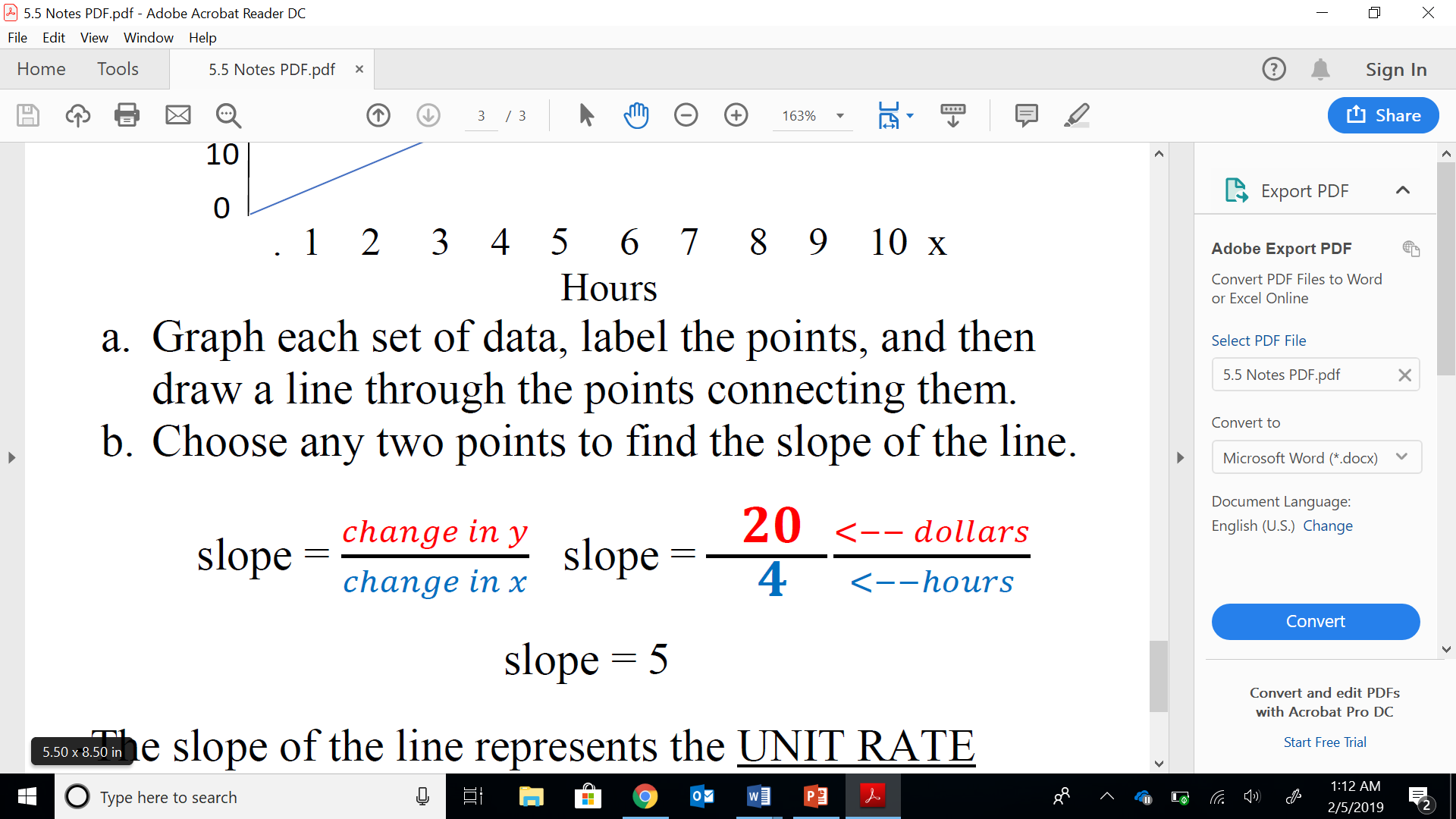
**Finding SLOPE/Constant of Proportionality from a Table:**

-The **SLOPE** of the line represents the **UNIT RATE, therefore** the **UNIT RATE** is the **SAME** as the **CONSTANT of PROPORTIONALITY.**

So, you will use ONE ratio from the table to find the **unit rate.**

**Ex1: Find the CONSTANT of PROPORTIONALITY**

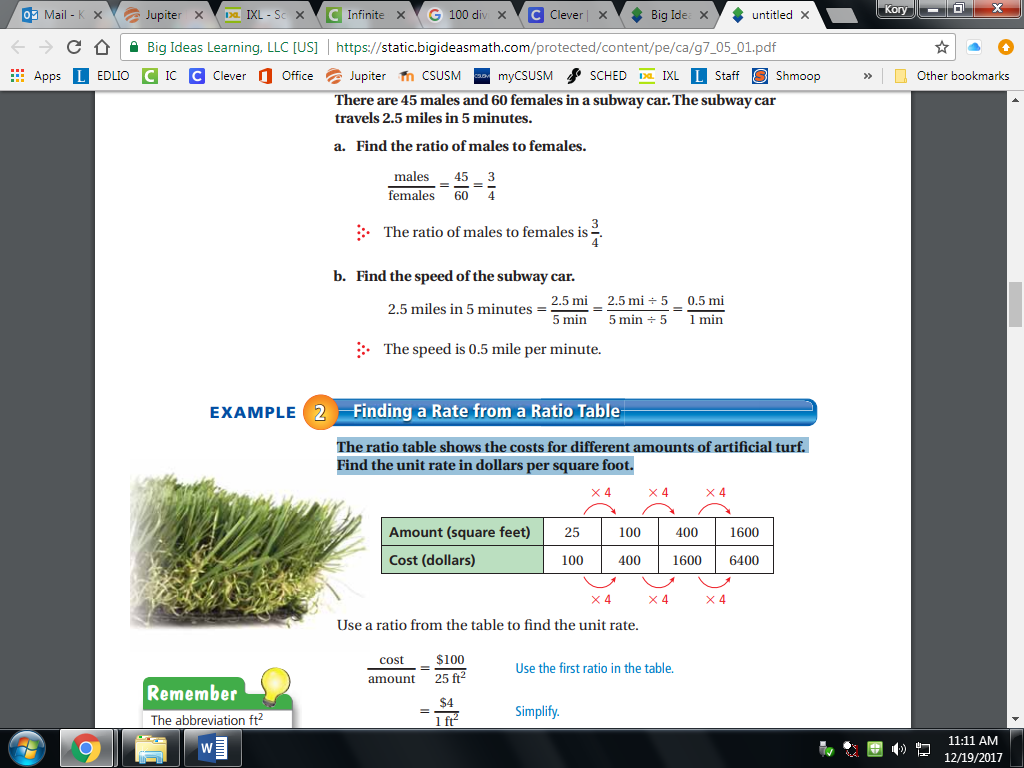
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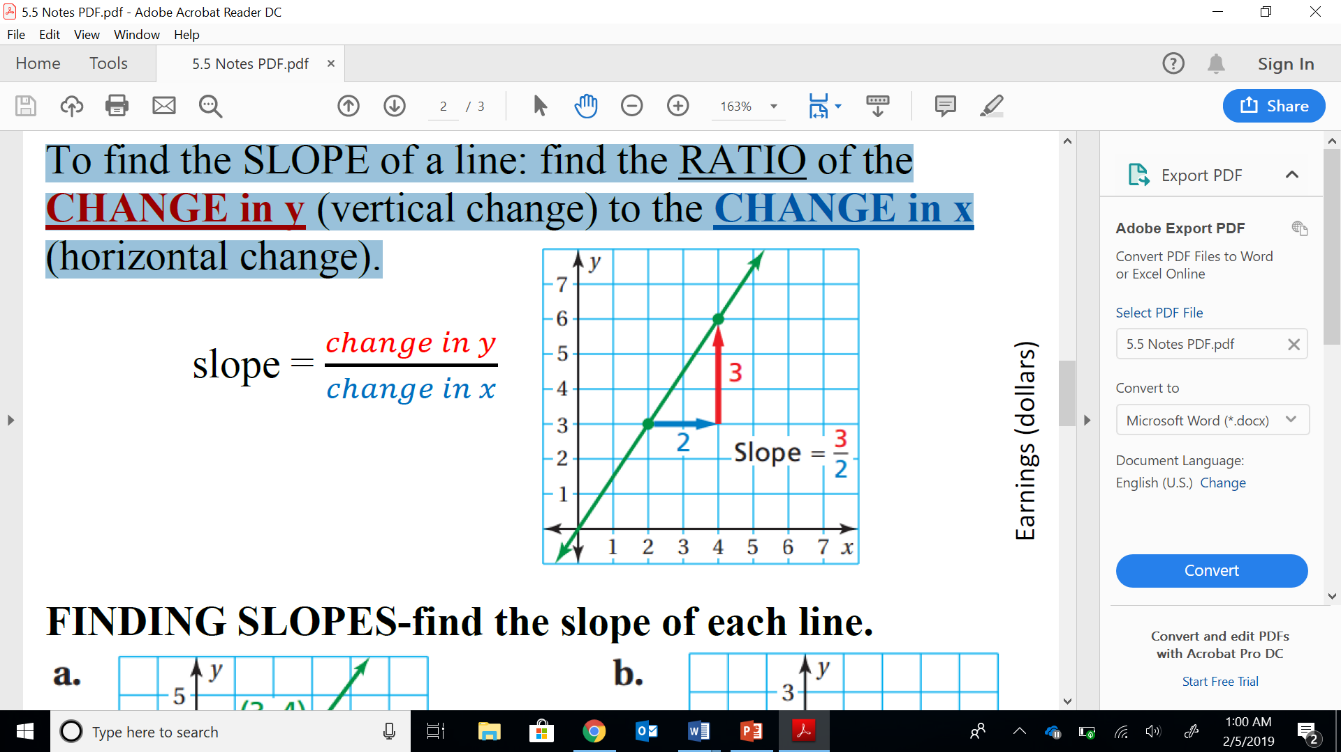
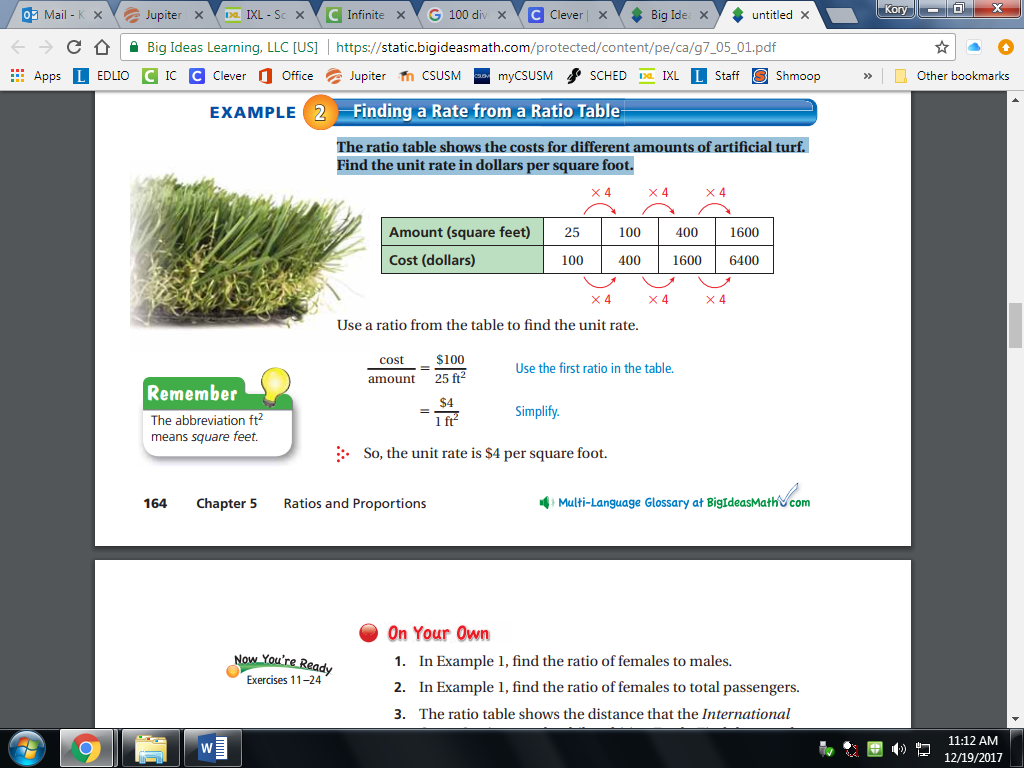


**The Constant of Proportionality is $5 per hour.**

**Ex2:** The ratio table shows the costs for different amounts of turf.

Find the unit rate in **dollars per square foot.**



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The **UNIT RATE** is $4 per square foot.

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| Practice IXL K.1 & K.4 (7th) | |
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**Lesson 5.6b Constant of Proportionality**

**EQ: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**Constant of Proportionality:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Slope-\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

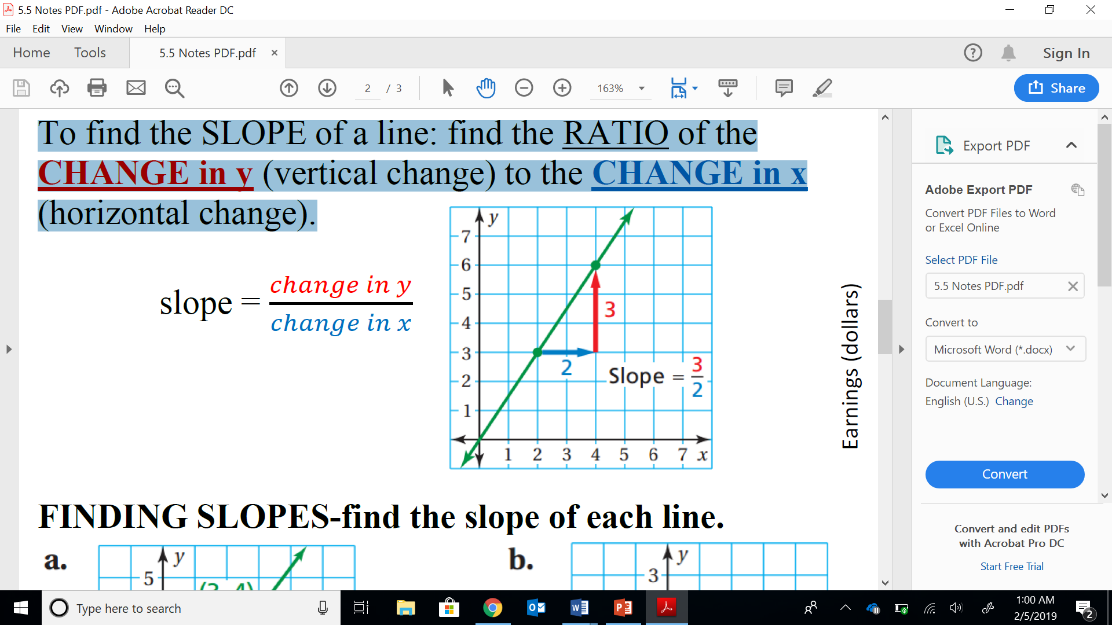
**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

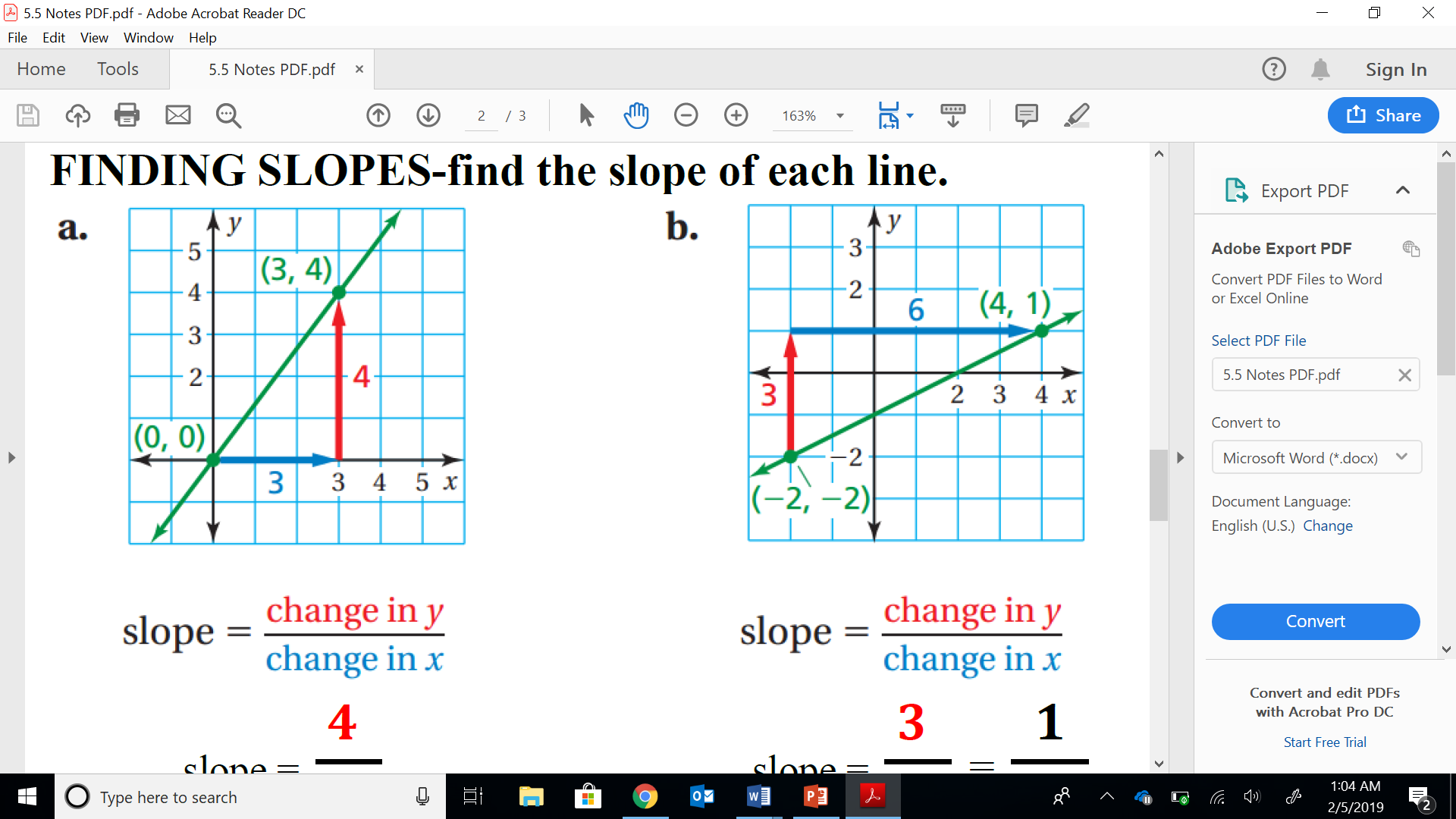
\*\*It is a measure of the **STEEPNESS of a line**.\*\*

**REMEMBER**- a RATE is a RATIO!

**Finding SLOPE/Constant of Proportionality from a Graph:**

Find the RATIO of: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_** (vertical change) **over** the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** (horizontal change).

EX1:



The slope of this line is: The slope of this line is:

**Finding SLOPE/Constant of Proportionality from a Table:**

-The **\_\_\_\_\_\_\_\_\_\_\_**of the line represents the **\_\_\_\_\_\_\_\_\_\_\_\_\_,**

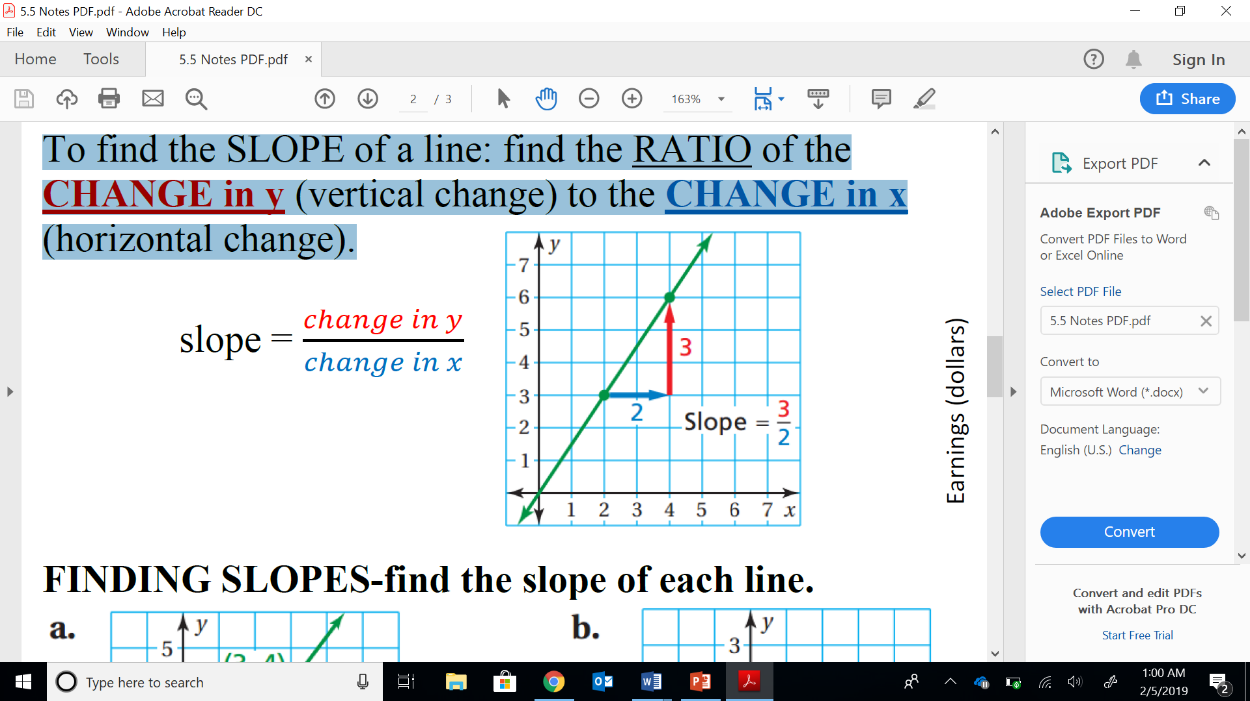
**therefore** the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is the **SAME** as the

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

So, you will use \_\_\_\_\_ ratio from the table to find the **unit rate.**

**Ex1: Find the CONSTANT of PROPORTIONALITY**

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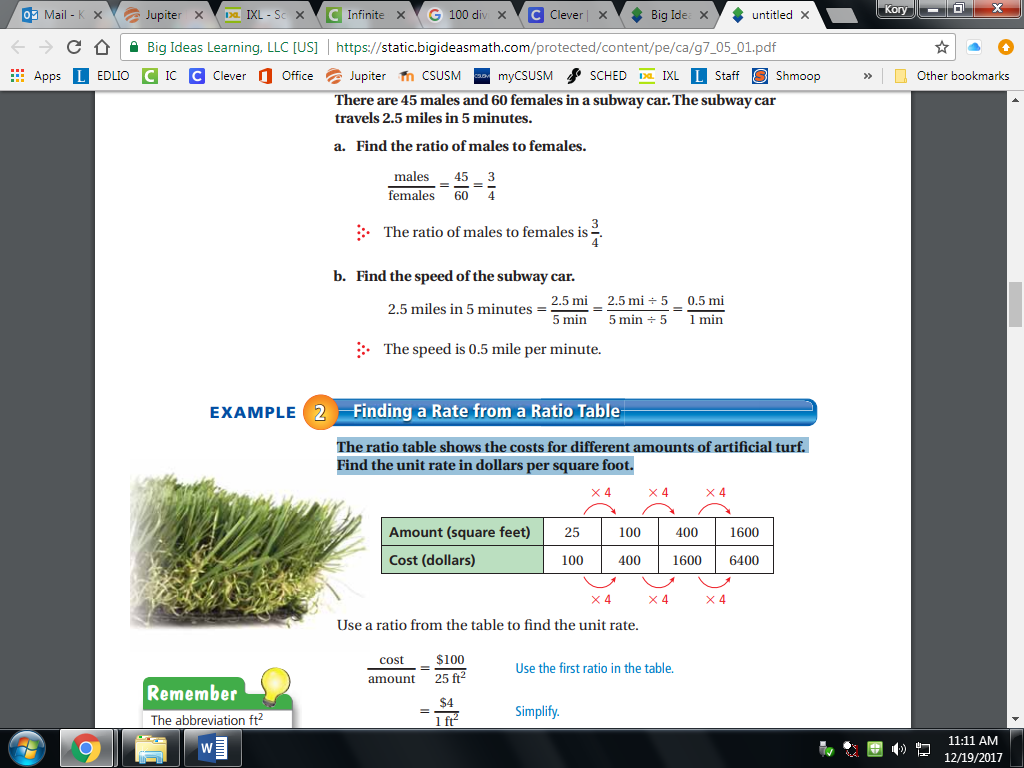
 **slope = =**

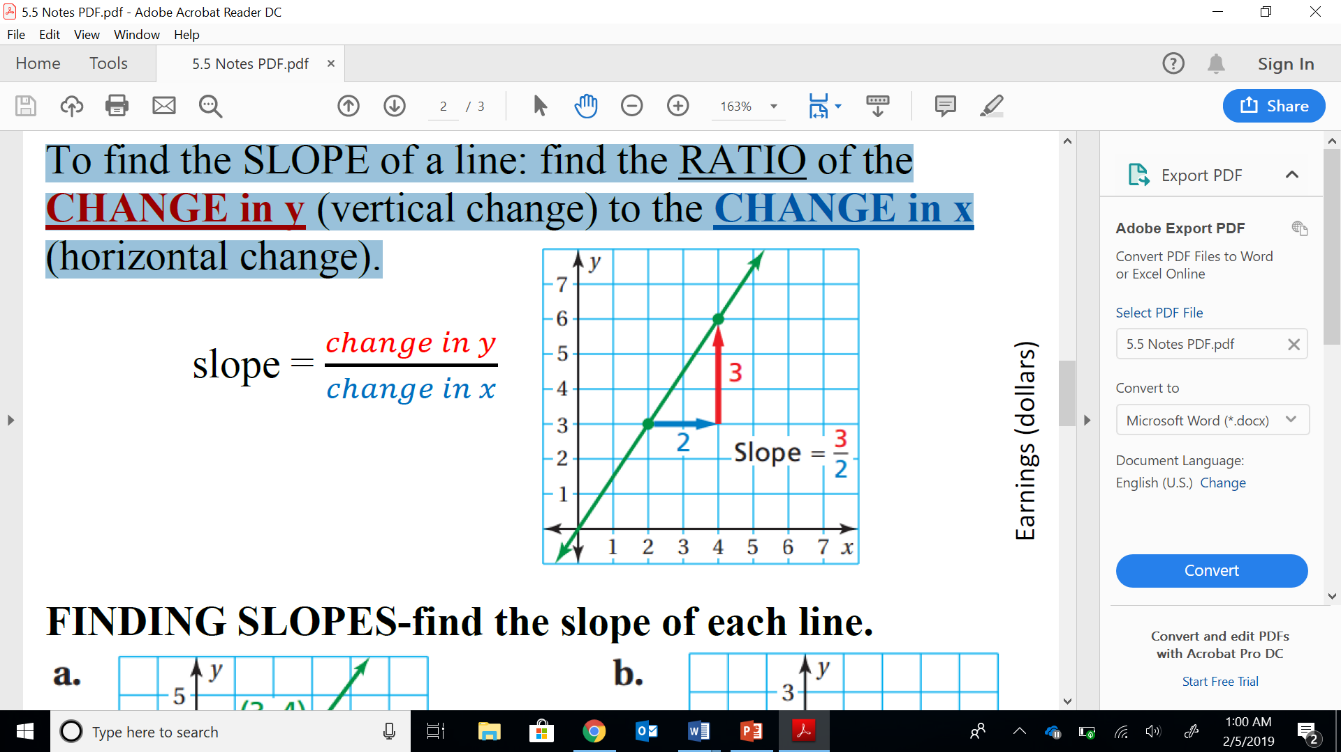
**Slope =**

**The Constant of Proportionality is \_\_\_\_\_\_\_\_\_\_\_\_ per hour.**

**Ex2:** The ratio table shows the costs for different amounts of turf.

Find the unit rate in **dollars per square foot.**



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**The Constant of Proportionality is \_\_\_\_\_\_\_\_\_\_\_\_ per ft2.**

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| Practice IXL K.1 & K.4 (7th) | |
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