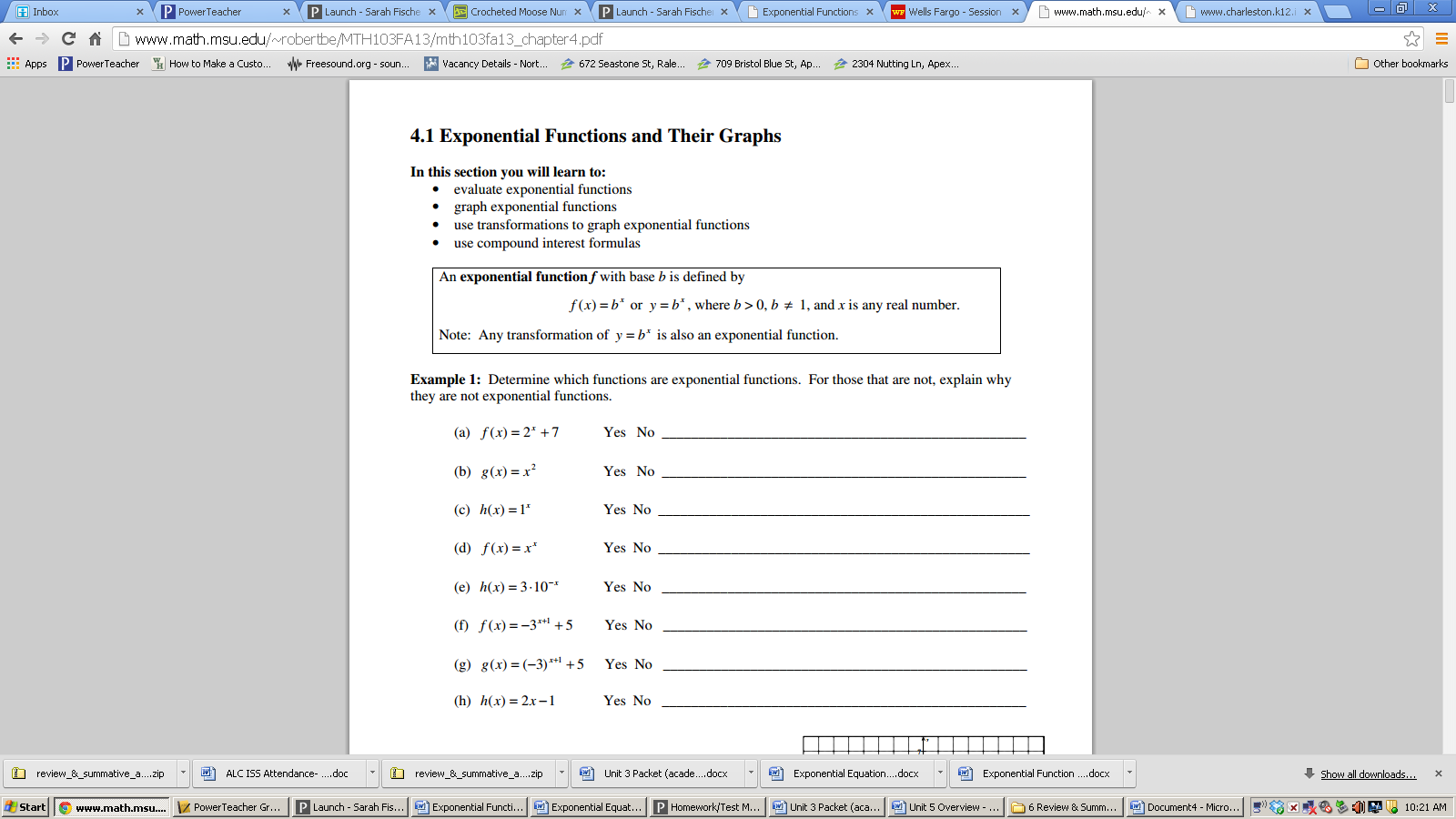
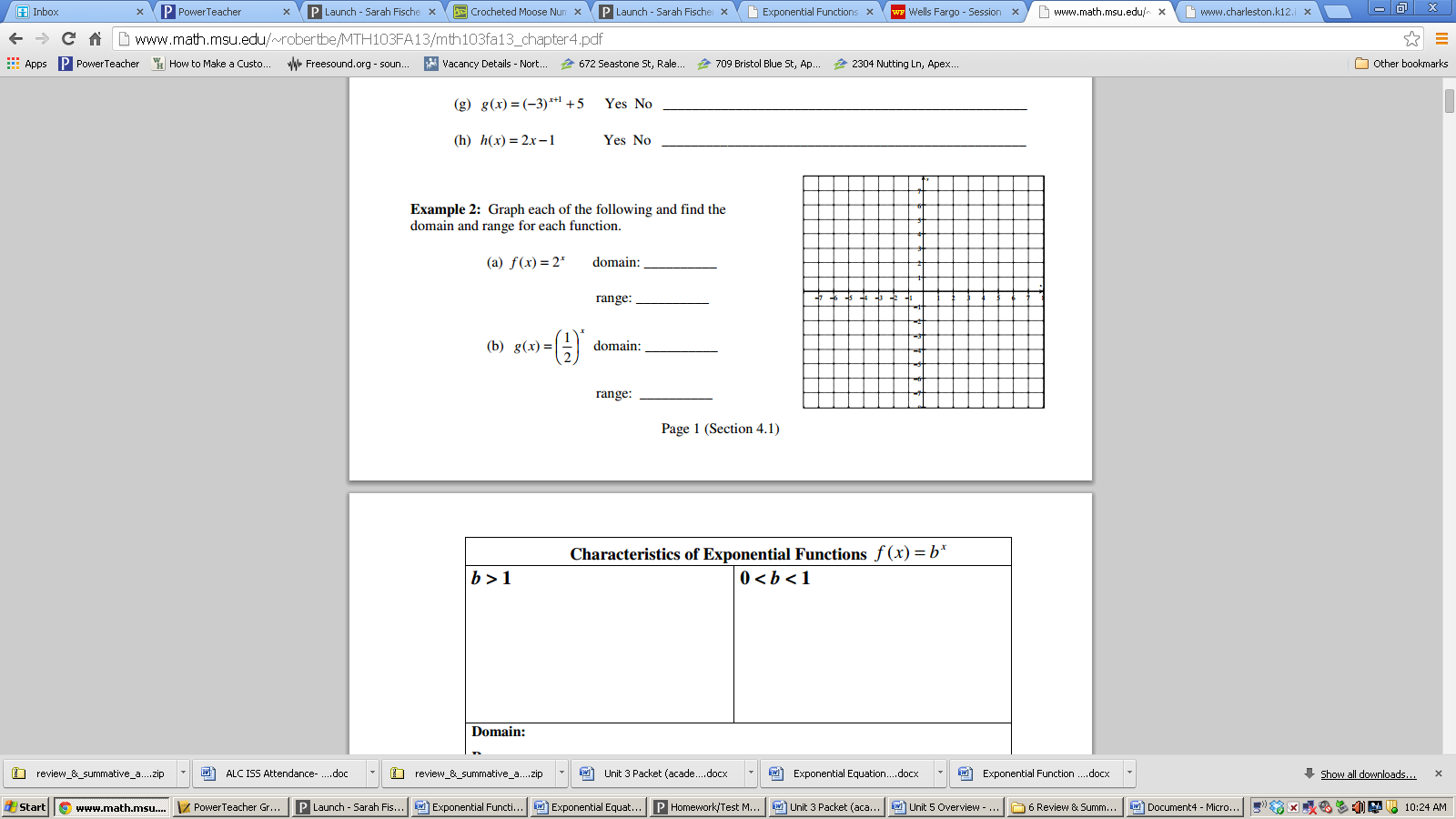
**Graphing and Transforming Exponential Functions + Review**



**Part I:**



**Part 2:**

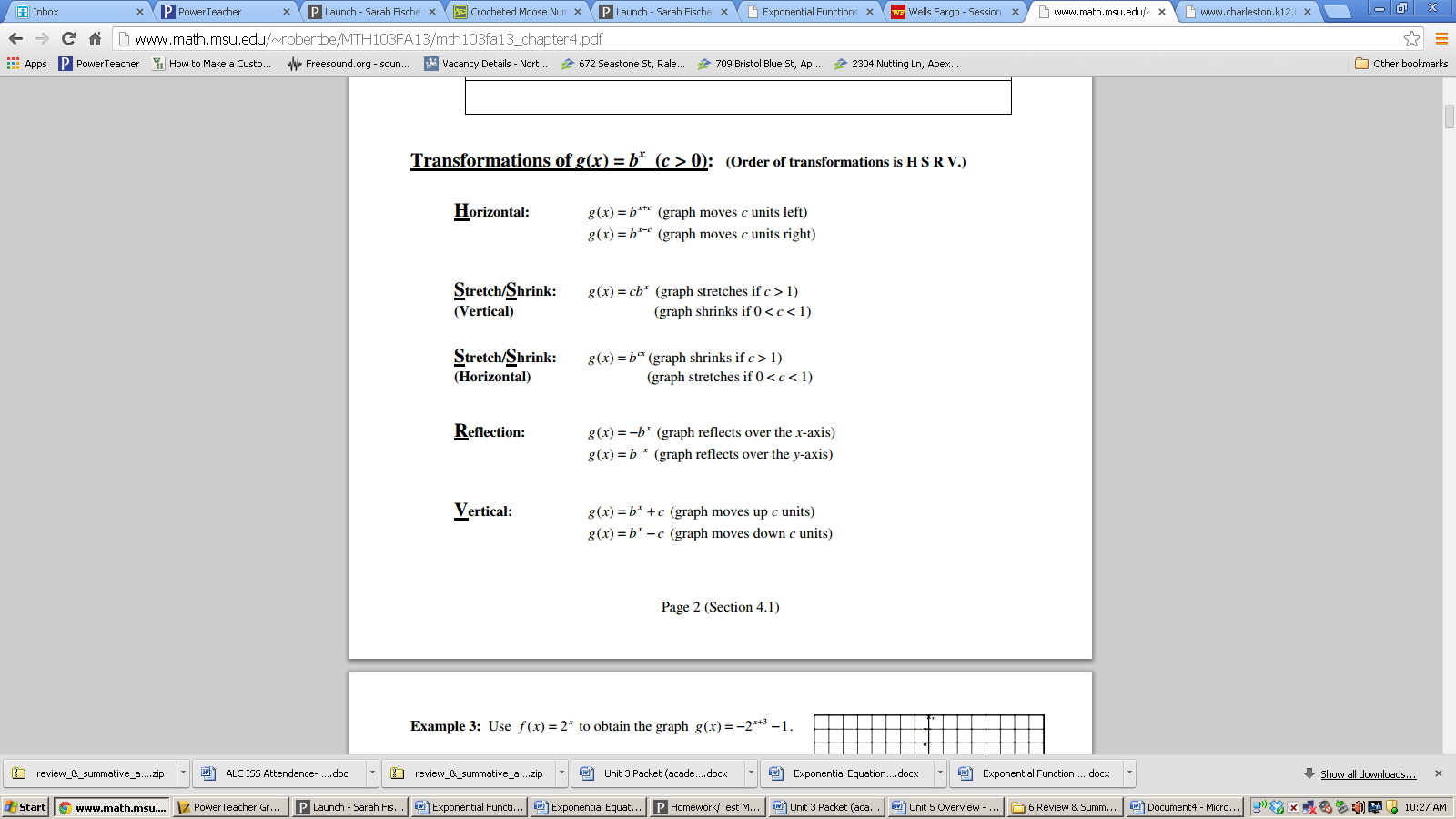
**Horizontal Asymptote:** an “invisible” line that the graph of a function never crosses.

Identify the horizontal asymptote of (a): Identify the horizontal asymptote of (b):

Identify the y-intercept of (a): Identify the y-intercept of (b):

End behavior: End Behavior:

**Transforming Exponential Functions**

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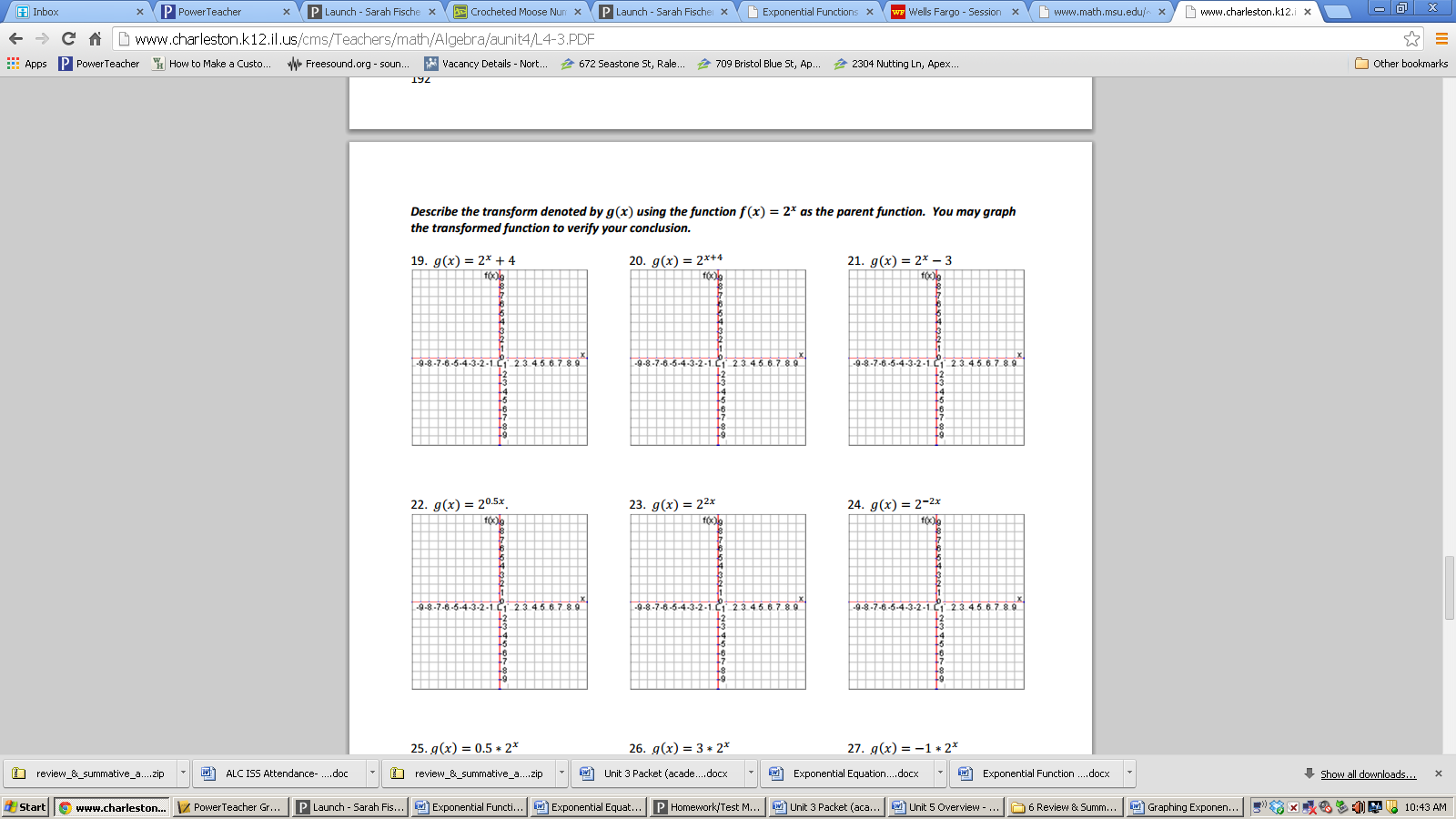
**Translate left or right:**

**Vertical stretch or compression:**

**Horizontal stretch or compression:**

**Reflections:**

**Translate up or down:**

**Part 3: Describe the transformation using the function f(x) = 2x as the parent function. Then graph the function. For each, identify the domain, range, y-intercept, the asymptote, and the end behavior as x🡪 and -. horizontal asymptote.**

3.

2.

1.

**Domain: \_\_\_\_\_\_\_\_\_\_ Domain: \_\_\_\_\_\_\_\_\_\_\_ Domain: \_\_\_\_\_\_\_\_\_\_\_**

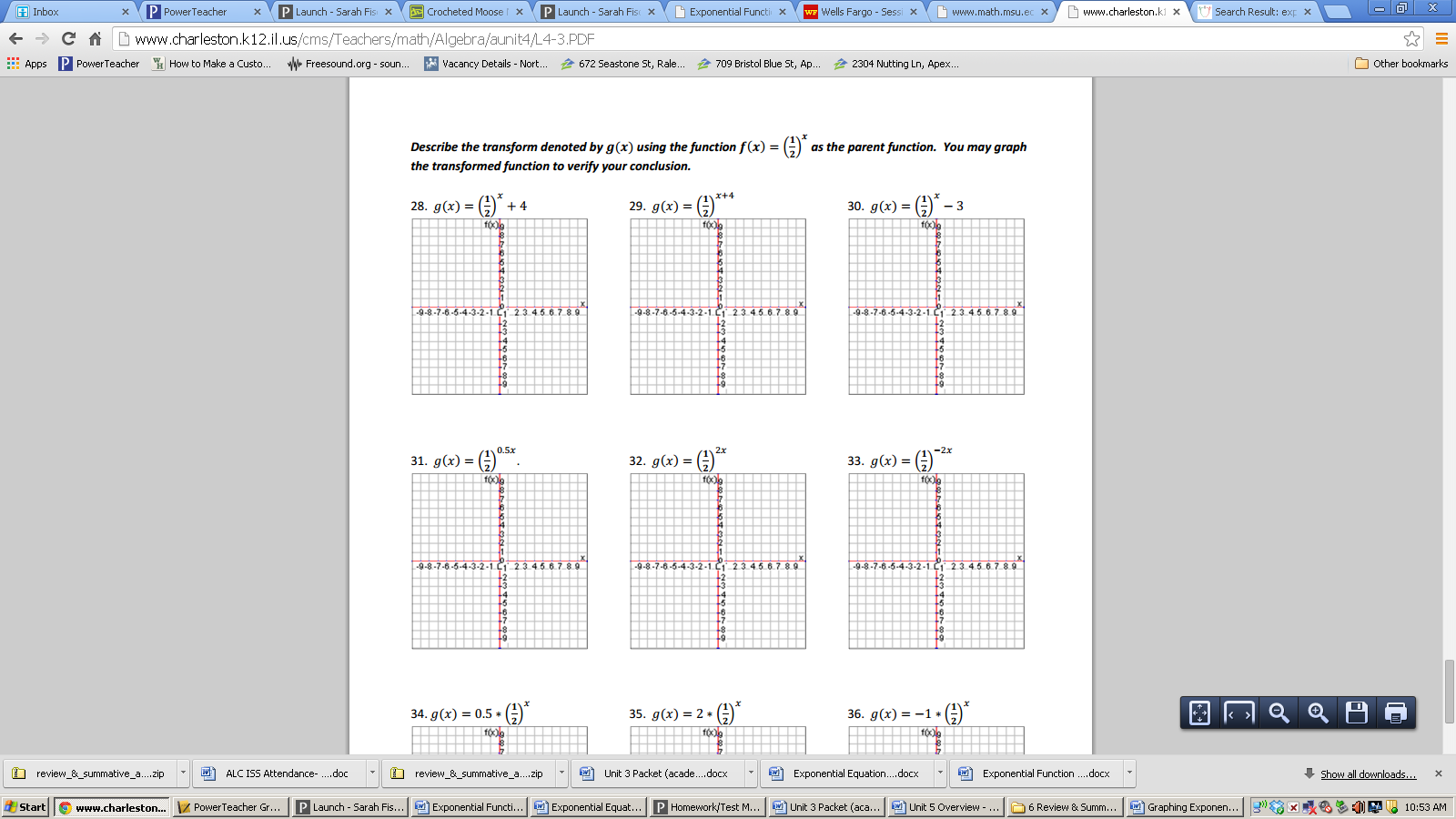
**Range: \_\_\_\_\_\_\_\_\_\_\_ Range: \_\_\_\_\_\_\_\_\_\_\_\_ Range: \_\_\_\_\_\_\_\_\_\_\_\_**

**Y-Intercept: \_\_\_\_\_\_\_\_ Y-Intercept: \_\_\_\_\_\_\_\_\_ Y-Intercept: \_\_\_\_\_\_\_\_\_**

**Asymptote: \_\_\_\_\_\_\_\_\_ Asymptote: \_\_\_\_\_\_\_\_\_\_ Asymptote: \_\_\_\_\_\_\_\_\_\_**

**End Behavior: \_\_\_\_\_\_\_ End Behavior: \_\_\_\_\_\_\_\_\_ End Behavior: \_\_\_\_\_\_\_\_**

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

****

6.

5.

4.

**Domain: \_\_\_\_\_\_\_\_\_\_ Domain: \_\_\_\_\_\_\_\_\_\_\_ Domain: \_\_\_\_\_\_\_\_\_\_\_**

**Range: \_\_\_\_\_\_\_\_\_\_\_ Range: \_\_\_\_\_\_\_\_\_\_\_\_ Range: \_\_\_\_\_\_\_\_\_\_\_\_**

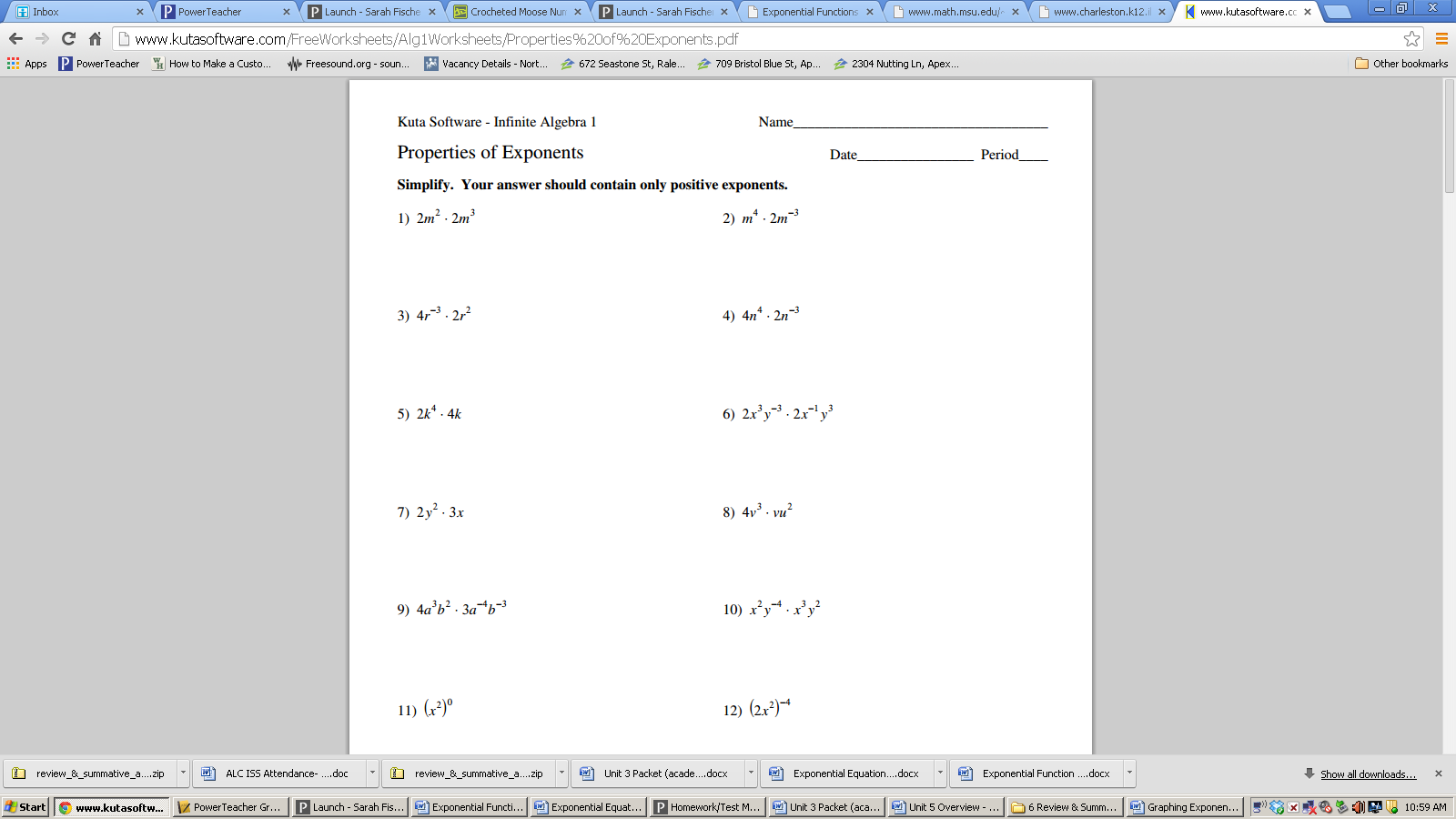
**Y-Intercept: \_\_\_\_\_\_\_\_ Y-Intercept: \_\_\_\_\_\_\_\_\_ Y-Intercept: \_\_\_\_\_\_\_\_\_**

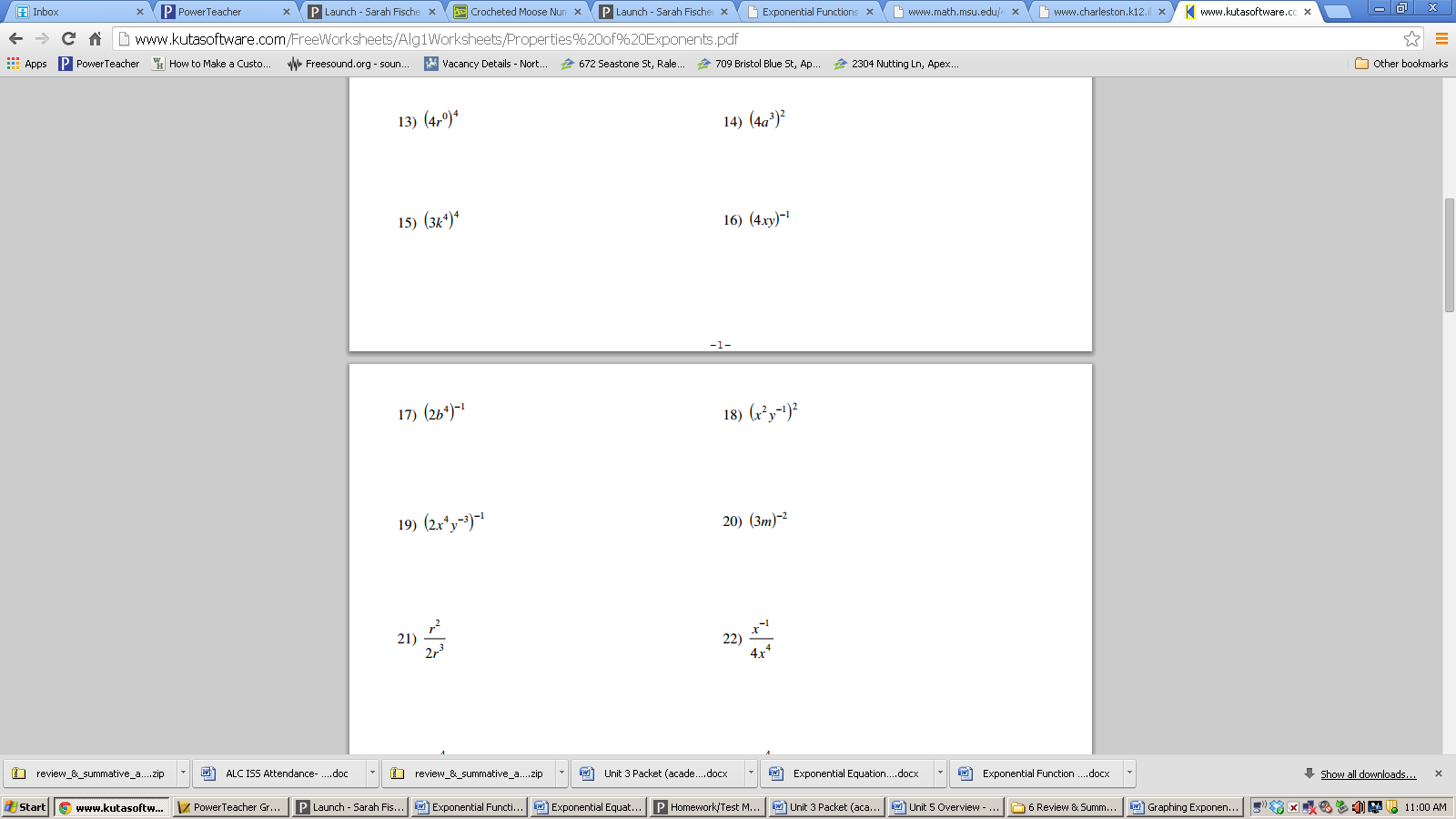
**Asymptote: \_\_\_\_\_\_\_\_\_ Asymptote: \_\_\_\_\_\_\_\_\_\_ Asymptote: \_\_\_\_\_\_\_\_\_\_**

**End Behavior: \_\_\_\_\_\_\_ End Behavior: \_\_\_\_\_\_\_\_\_ End Behavior: \_\_\_\_\_\_\_\_**

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

**Review:**

**Part 5: Simplify the following by applying the properties of exponents.**

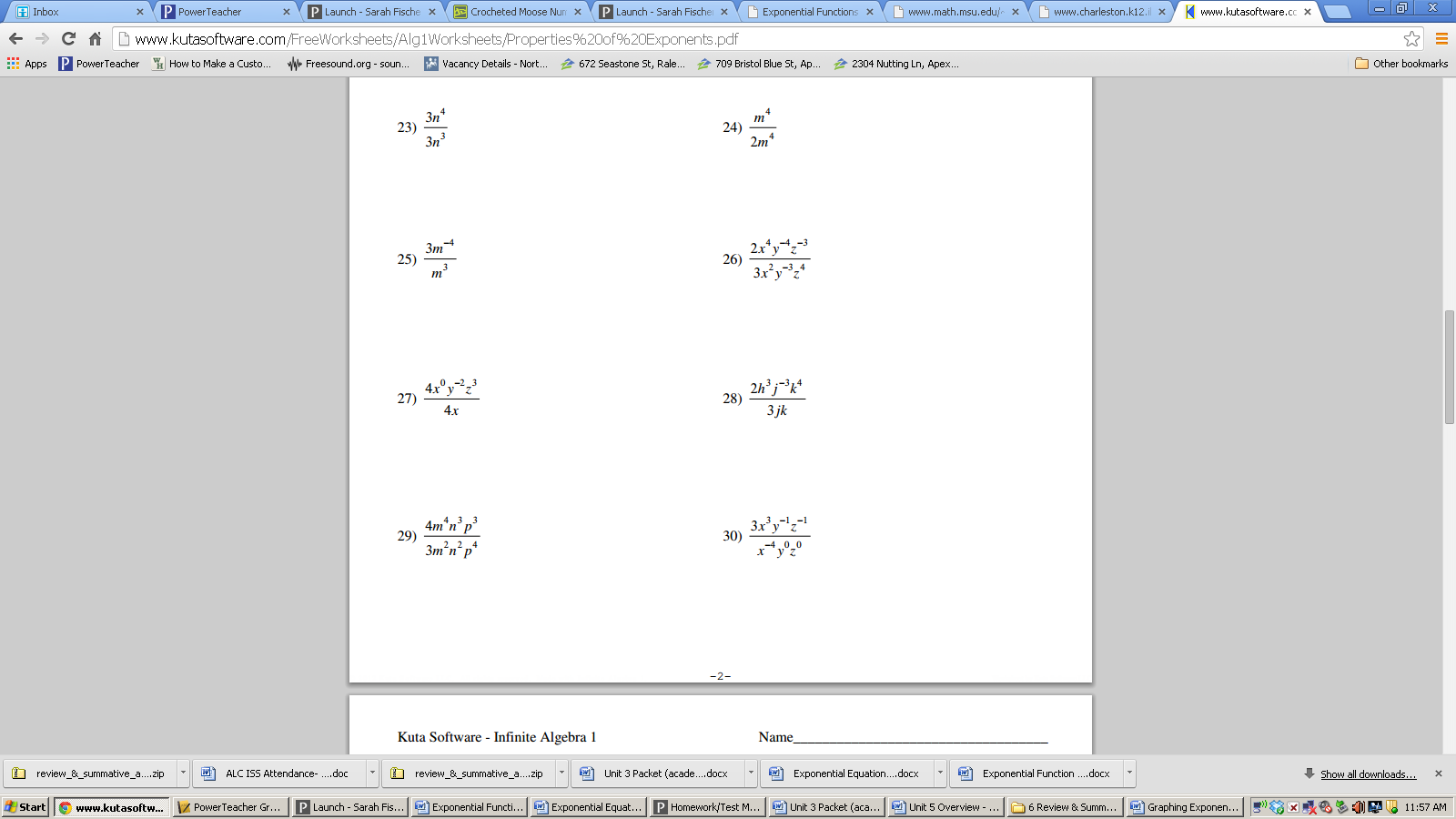
****

**6)**

**5)**

**8)**

**7)**

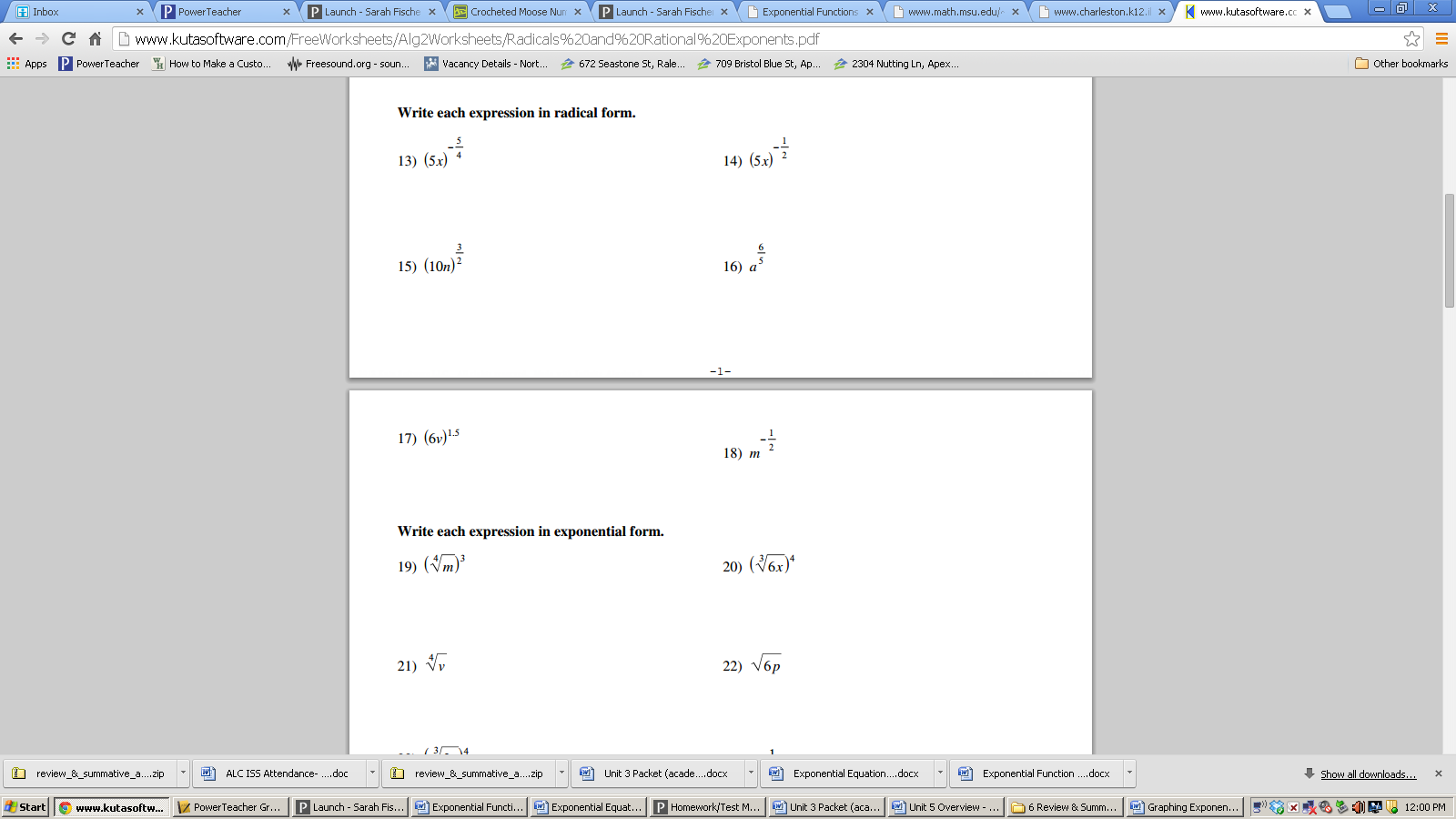
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**10)**

**9)**

**12)**

**11)**

****

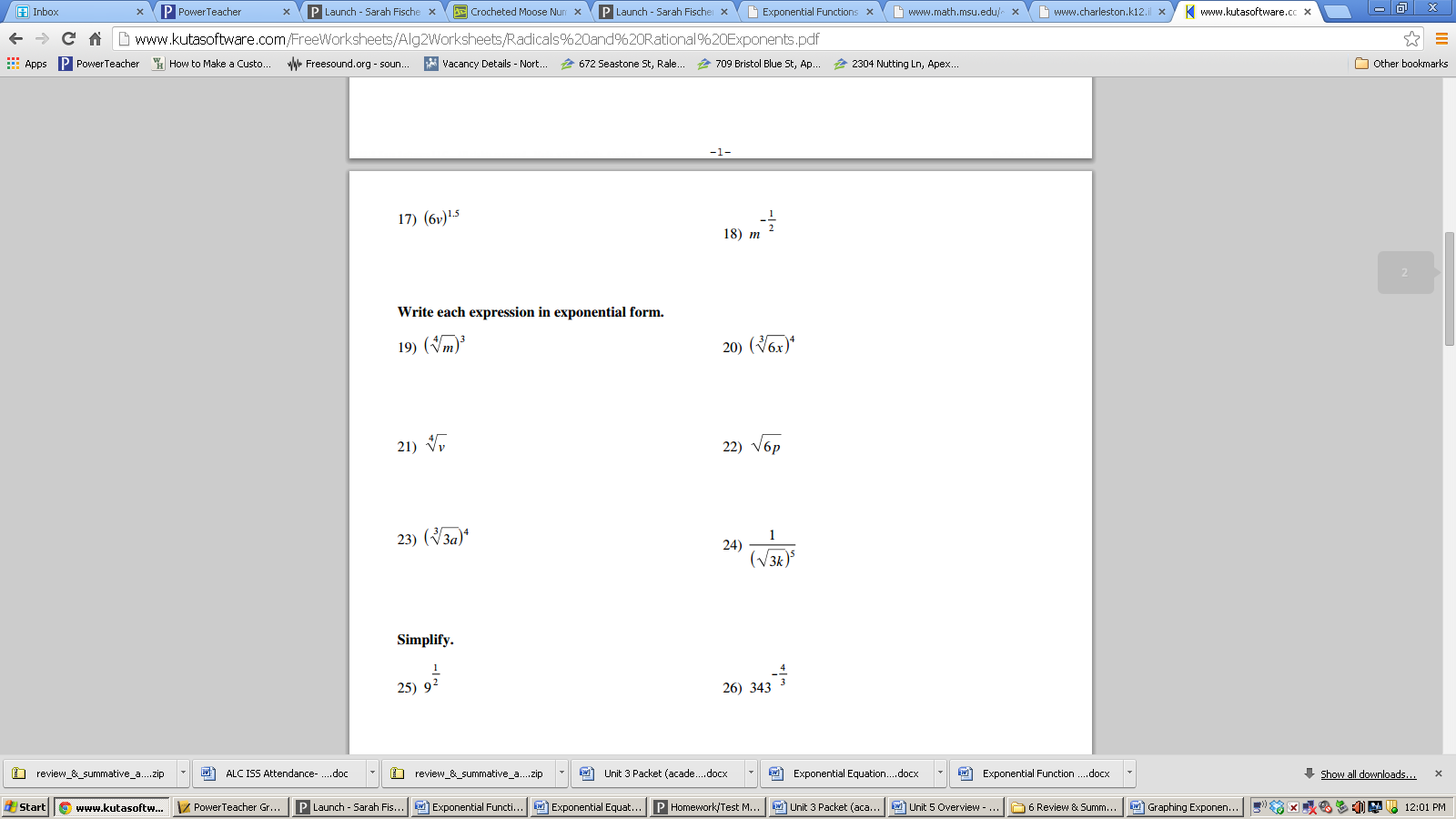
**Part 6:**

**2)**

**1)**

**4)**

**3)**

****

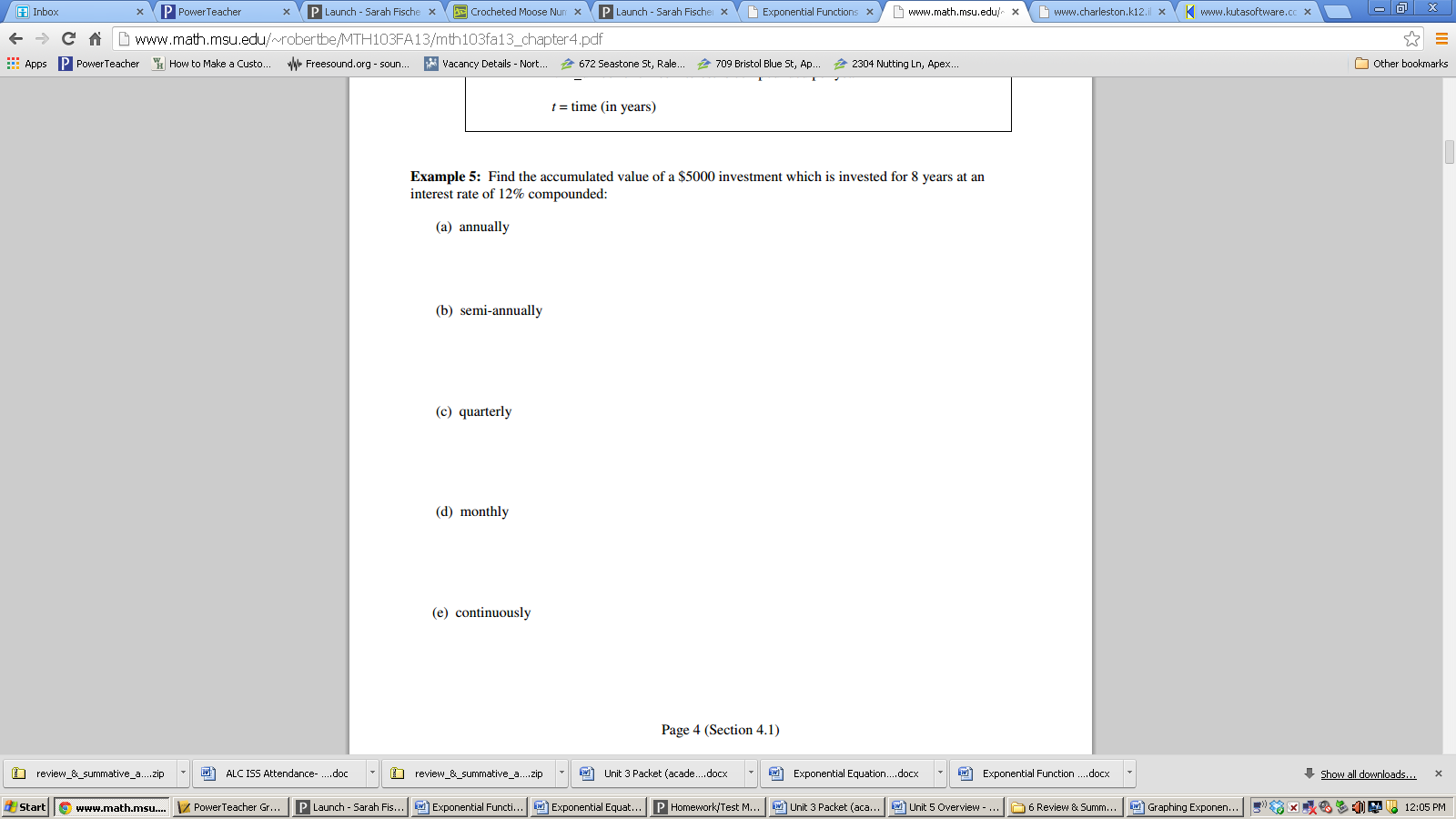
**Part 7:**

**2)**

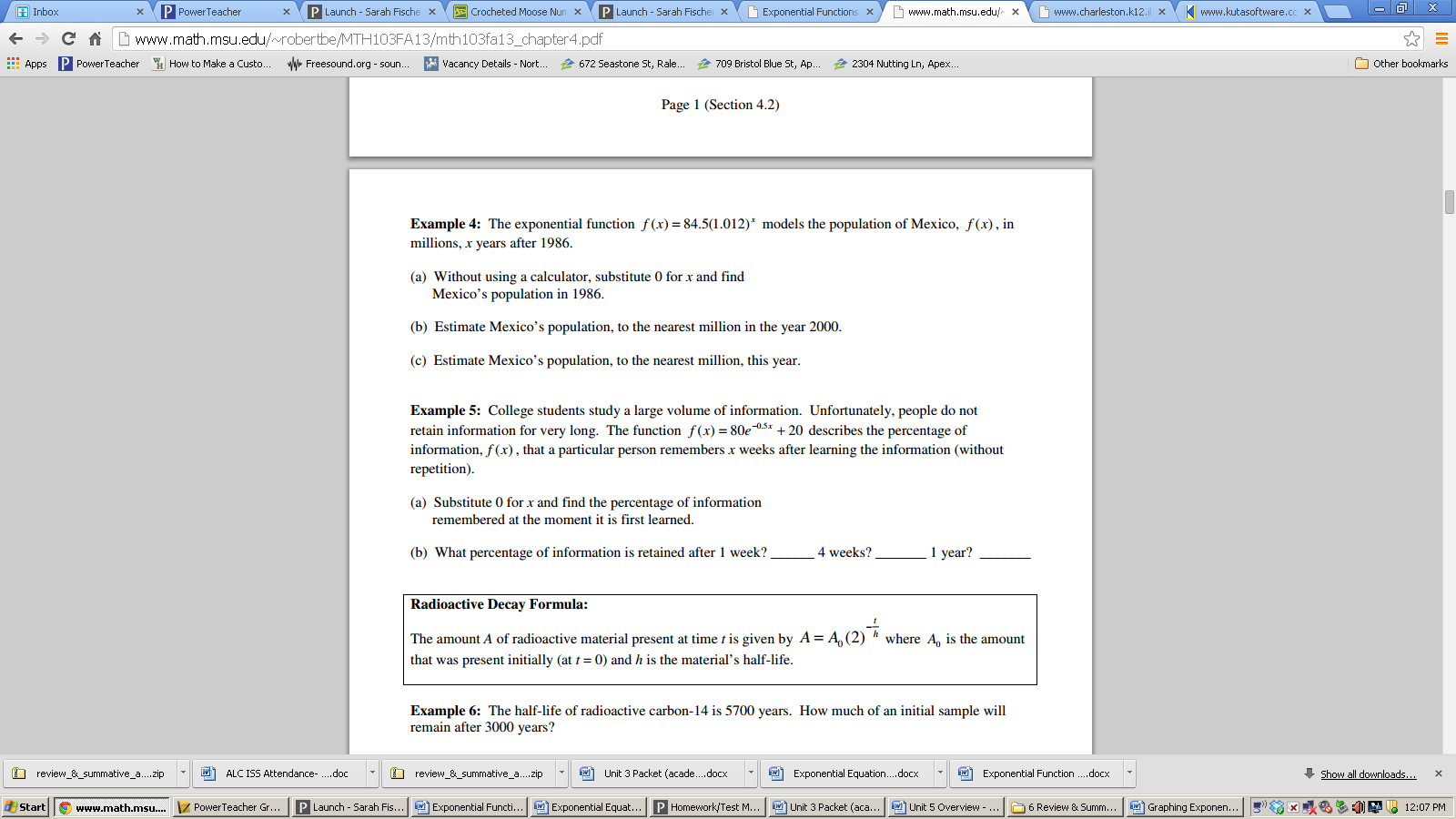
**1)**

**4)**

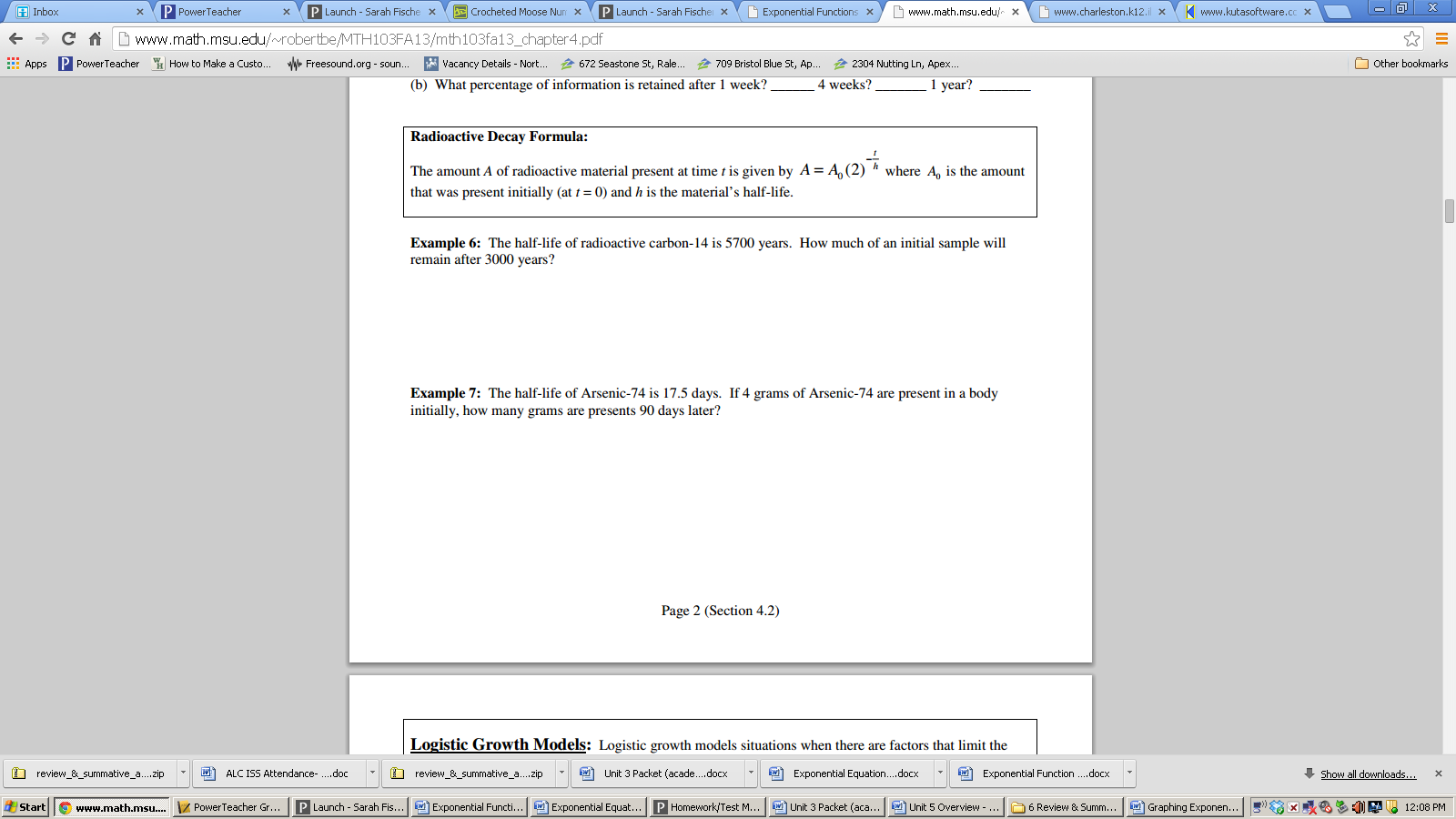
**3)**

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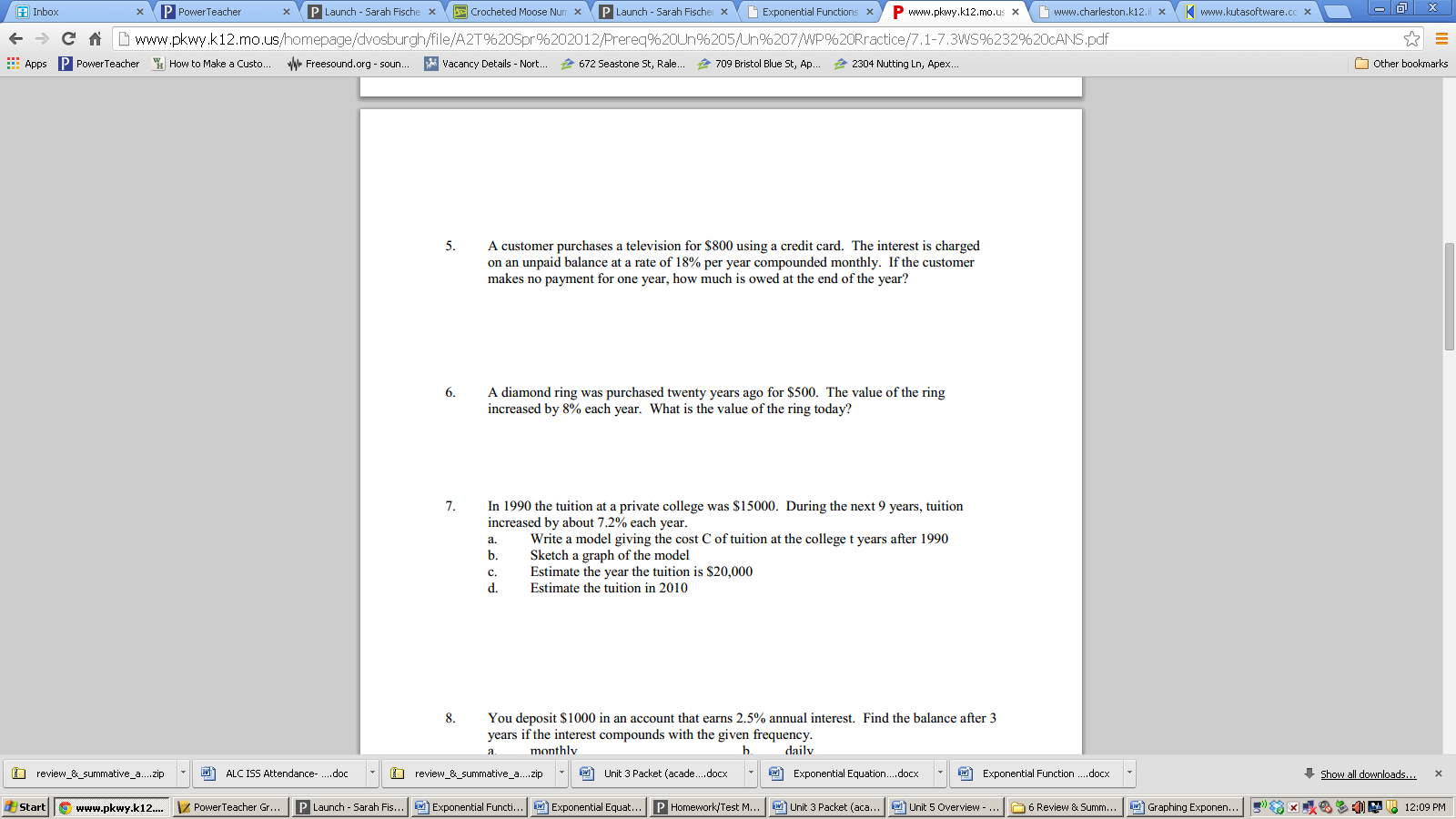
**Part 8: 1)**

****

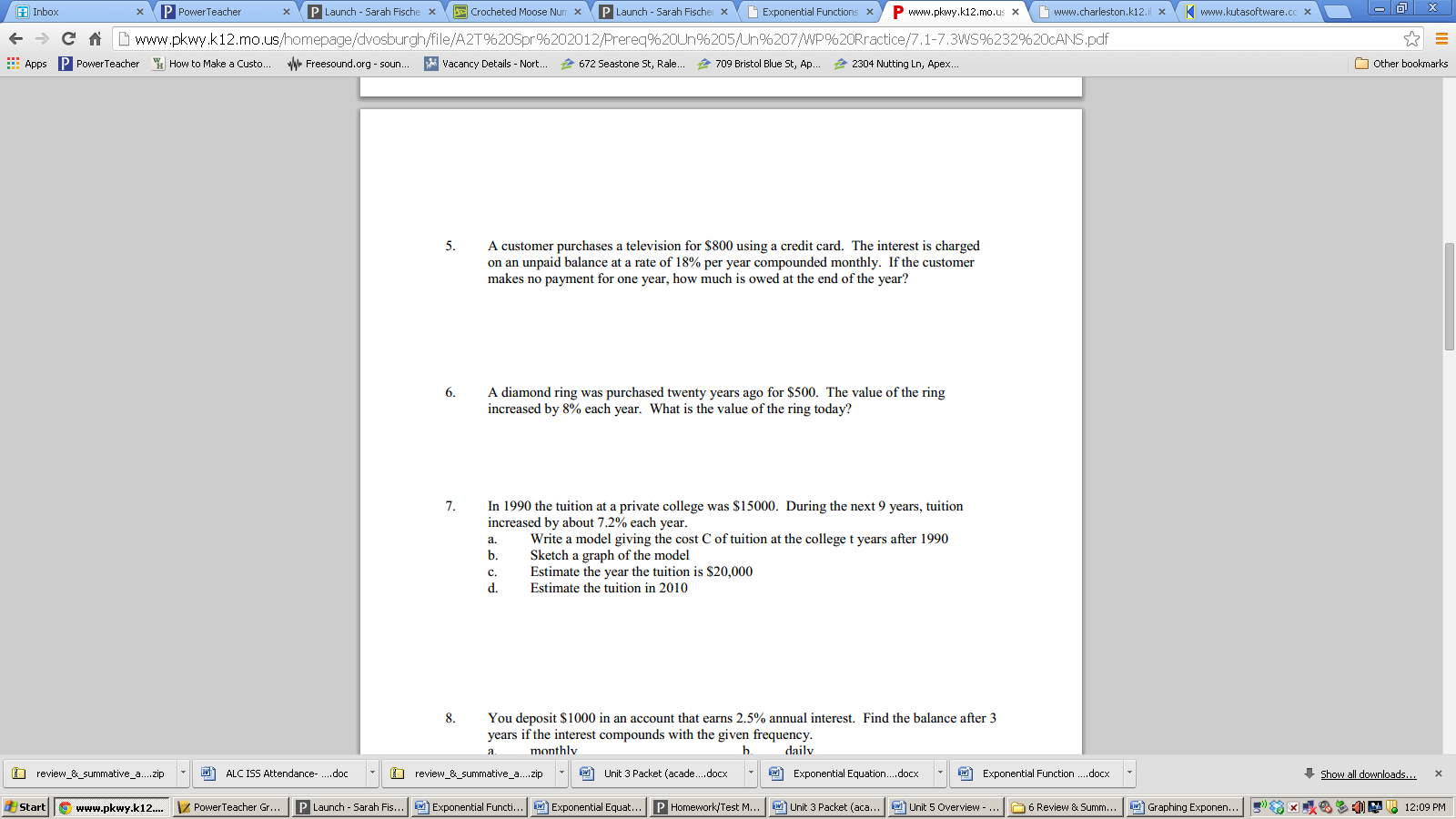
**2)**

****

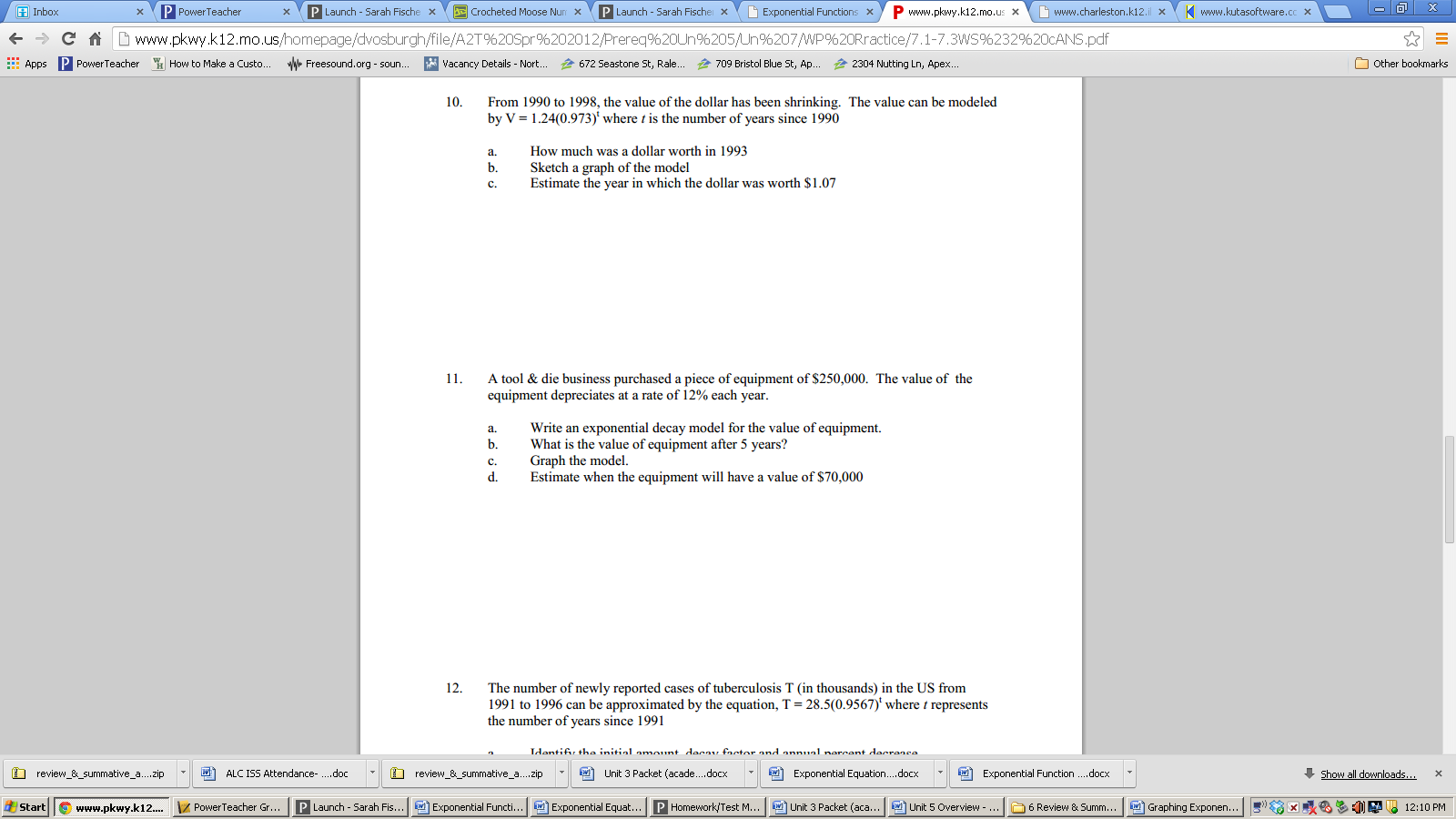
**3)**

****

**4)**

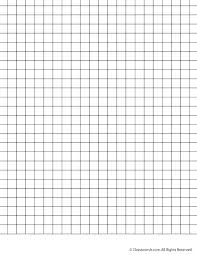
****

**5)**

****

**6)**

🡨 On graph below.

**Helpful Hint: Count by 10,000 on your y-axis. Count by 2s on your x-axis.**