

For all of the following problems, you **must** show your work using the dimensional analysis methods from this unit to receive credit. If necessary, round your answers to 2 decimal places.

16 ounces = 1 <u>pound</u>	1 ton = 2000 pounds	1 school year = 180 days
1 mile = 5280 feet	660 feet = 1 <u>furlong</u>	1 inch = 2.54 cm
1 year = 365 days	20 drops = 1mL	24 hours = 1 day
1 carat = .2 grams	2.2 pounds = 1kg	52 days = 1 dog year

- Silver costs \$14.77 per ounce. How many kilograms could you purchase for \$85,300?
- The dreaded Mount Doom stands 4,500 feet tall. How tall is it in decimeters?
- If you are travelling 85,000 ft/sec, how fast are you going in miles/hour?

Solve each of the following for the indicated variable. **You must show your work to receive credit.**

8. $\frac{p}{4} - e = t$

$p = \underline{\hspace{2cm}}$

9. $D = \frac{1}{2}e(9k + h)$

$h = \underline{\hspace{2cm}}$

REVIEW from Units 1 and 2

- Domain: _____ Range: _____

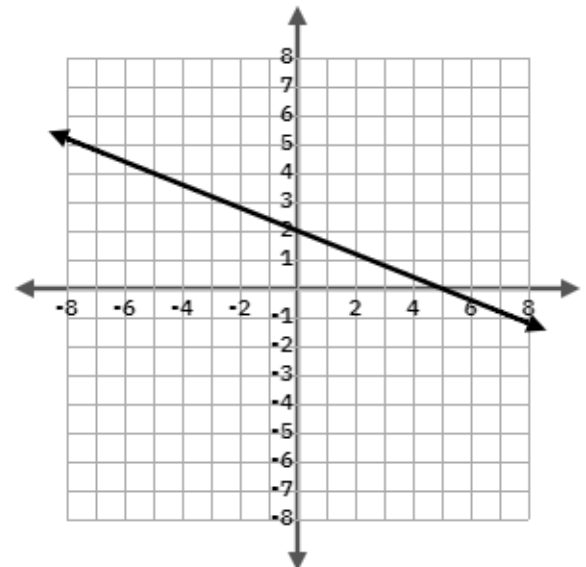
Increasing: _____ Decreasing: _____

x – int in function notation: _____

y-int: _____ Rate of Change [-5, 5]: _____

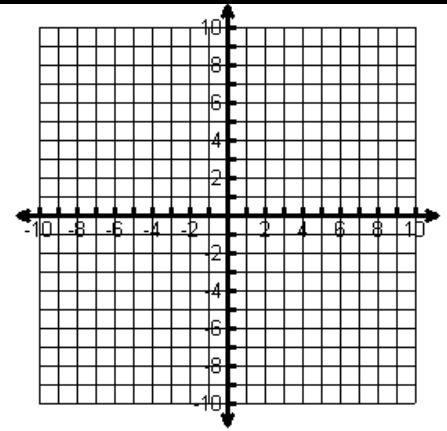
End Behavior: $x \rightarrow -\infty, f(x) \rightarrow \underline{\hspace{2cm}}$

$x \rightarrow \infty, f(x) \rightarrow \underline{\hspace{2cm}}$



Graph the following system by the method of your choice:

11. $x + 2y = -7$
 $-7x - 8y = 1$



The following section is free response on the review but will be **multiple choice** on the test:

12. Each member of the Cross-Country Team has to eat .023 kg of pasta the night before the big race. If there are 15 members of the team, how many dg of pasta will they eat in total?

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13. **Looking at your answer for #2**, what are the term(s), coefficient(s), and constant(s) in your answer?

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14. How many terms are in the expression: $\frac{9}{5}x^7 + 13x^5 - .07x^3 - 22x + 38$?

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15. How many mL are in 1 hL?

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16. Translate the following into an algebraic expression: 2 of a number more than the square of the quotient of 12 and that number.
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