

Chapter 2 Review

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Algebra 2 Lv 1

1 Warmup

1. Write down homework: Read chapter review (p. 130-132, except for 2.5). Go over any content you are not comfortable with. Do the chapter test on p.133, problems 1-26. (will count as homework, not as a test).
2. Write numbers of homework problems you had difficulty with at the top of the board; if you can solve them, go up and do so (and get class participation points)!

2 Test grading

Every question (or lettered sub-question) was worth 5 points except question 10, which was worth 10 points. Because this test was harder than I had expected, I will apply the following piecewise function to the raw score you see on your paper:

$$g(x) = \begin{cases} 100 & \text{if } x \geq 90 \\ x + 10 & \text{if } x < 90 \end{cases}$$

So, for example, if you scored 83 it would count as $83+10=93$. If you scored 93 it would count as ?.

3 Things to think about

- Functions must have only one $f(x)$ value for every x . It is fine to have more than one x value mapping onto the same $f(x)$ value. At the most extreme case, the function defined in problem 2, $f(x) = 3$, has the same $f(x)$ value for every x and it's still a function.
- $f(x)$ does not in any way mean to multiply f times x . It means to apply the function f to x . I know it looks like multiplication but it's not.
- Remember the distributive law!

$$a(b + c) = ab + ac$$

Do not do something like this:

$$\begin{aligned} y - 5 &= 2(x - 3) \\ y &= 2x - 3 + 5?? \end{aligned}$$

- To find a linear function that goes through a point, plug in the x value and solve for y , or use the point-slope form.
- Point-slope form is very useful. For example:
 - Problem: Find a point on the graph of this equation:

$$y - 7 = 3(x - 5)$$

Answer: $(5, 7)$

- Problem: Find an equation with a slope of 3 that goes through the point $(5, 7)$.

Answer:

$$y - 7 = 3(x - 5)$$

- To *evaluate* something means to find its *value*.

4 Questions?