

#ref

## 1 | Why did i get this wrong?

*an on-going journal to help me review questions i got wrong, so i can learn from them and improve in the future.*

### 1.1 | tests

#### 1.1.1 | ajt #2

reading 1-8 :: d, c

- i didn't recognize the contrast. the word in question was referring to before, not after. this contrast eliminates three answers.
- however, i see no evidence for the correct answer.
  - #revisit this w/ [cite/t:@selina]

lesson: look for the contrast! \* reading 1-30 :: d, c

- i interpreted the data! no. interpretation. remember your training.
- stuck between c and d, should have recognized that nothing in c was wrong, so i was either missing something, or c was the right answer.

lesson: do not interpret. operate at lower level of abstraction! \* reading 1-32 :: d, b

- answer choice "ruined" implies that it was once good, which there is no evidence for. everything needs evidence.
- this was a "valid in classroom" mistake

lesson: make sure to be clear about the assumptions you are making. \* reading: 1-37 :: c, d

- the answer i chose had essentially the same meaning as the correct one, but it wasn't about the future!
- i should have recognized that d was also valid. i thought it wasn't because it had an "unless," but that is countered by the "likely" in the question above.

lesson: focus on tense. don't be quick to eliminate the answers – this could have been an example of talking myself into the wrong answer. \*/ reading 1-45, 1-48 :: got these all wrong?? something happened here, ask about during review. #revisit /\* reading 1-51 :: d, a

- two things i got wrong in this question:
  - nothing was actually de-extincted. only, endangered cloned.
  - de-extinction has not happened yet! so, d does not work.

- fundamentally, was not careful enough when thinking about tense, again!

lesson: consider tense! consider examples more carefully! \* writing 2-4 :: d, b

- no evidence for part of my answer – "less engaging"
  - however, no evidence for tastes changing either? are we supposed to assume this? #revisit this. I don't know what i did wrong. \* writing 2-25 :: a, c review rest of writing.
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nc 3-8 :: b, c

- increasing by \$100 per week does not mean every week they increase by \$100. it means, that they increase by \$100 once for the remainder of the time.
- i could have found this out if i actually did the math out rigorously, and realized i was making a mistake as none of the answers matched
- in an effort to save time, i did not, and estimated.

lesson: be rigorous! don't get trapped in your own assumptions. \* nc 3-9 :: a, b

- i missed one part of the question, namely  $x > 0$ .
- remember to actually check all the answers! if i did, i would have realized that two of them work, and realized my flaw

lesson: check multiple answers, and also look for things you can factor out / divide! \* nc 3-11 :: a, c

- the equation of a parabola is  $ax^2 + bx + c$ !
- so if you see a -c term, that means the intercept is at -c, not +c.

lesson: learn the equation for a parabola. goddamn it. \* nc 3-15 :: b, d

- ran out of time and guessed entirely on this question.
- upon doing the question, needed to consider the entire equation. this made it trivial
- found a trap in the question, where one of the answers was the factors of the right answers. \* nc 3-16 :: 8/9, 2
- subtracted five from both sides instead of added five to both sides.
- i don't know how to prevent this and still have time.

lesson: be careful of dropping signs! \* nc 3-17 :: 300, 480

- i forgot to add the original side length to my answer. I calculated the unknown side, but then didn't add the known side to it's length to find the holistic length.

- check what the question is actually asking!
- especially for these line questions, just db-check which line is which.

a lot of these wrong answers seem to be intermediate steps. dont get lost in them!

lesson: check what the question is actually asking before writing it down. make sure to pop back to the question to make sure your not answering with an intermediate step! \* nc 3-19 :: 12, 10

- i completely guessed on this question. hey, 12 is actually pretty close!
- i should have trusted my instincts and just made the equations, and see if that worked.

lesson: trust your instincts about systems of equations questions. I got flustered with this one. \* nc 3-20 :: 9/15, 4/5

- i swapped my sides again!
- i mixed up QR for SR.
- make sure to db-check sides. that's how they get you.

lesson: check the sides! \* c 4-8 :: a, c

- the quadrants of a graph! it goes,

$$\frac{2}{3} \quad \frac{1}{4}$$

counterclockwise from the top right! - knowing this, question becomes trivial. \* c 4-24 :: a, c

- i guess i forgot to square my answer for the radius.
- intermediate steps again!

lesson: for circle questions, always consider the square of the ending bit! the constant term will be the square of the radius. \* c 4-26 :: d, b

- it gave it to me in seconds, and asked about minutes..
  - make sure to pay attention to the units on every single number they give you!
  - this would have been obvious if i had realized that the options are factors of 60.
    - \* if their are factors of 60, or something else, in an answer, then think about your units and the mistakes they could be causing! lesson: look out for mismatched units, and be able to spot them based on common factors in the answer choices. \* c 4-30 :: c, b
- guessed on this question, cus out of time
- if they need the x-intercepts to be identified, then that means they need it in factored form, not in vertex or standard form
  - this instantly elims two of the answers, and we know that the vertex is on the right side, so the neg on the factor has to be on the larger number

lesson: use the position of the vertex to determine the signs on the factors \* c 4-33 :: 92, 20

- i dropped a sign.

t drop signs! \* c 4-36 121, 54-64

- used the wrong formula. to find the area, use  $A = \pi r^2 * \frac{\theta}{360}$ 
  - we know this because area is in square units of length.

lesson: check the units on the formula to make sure you are using the right formula \* c 4-38 :: 985, 1356

- this was a hard question.
- error was not re-evaluating the previous equation for the updated variables

lesson: make sure to re-evaluate all the variables whenever there is a set of questions using a formula! \*

### 1.1.2 | **bb1**

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r3 :: a, c

- i read the "mediation" as "meditation."
  - how to mitigate this? idk!
  - -revisit from jack
- advice: be wary that your own thinking can make you read things wrong

lesson: you can read things wrong. that is a real issue. be aware that this is a failure mode. \*

### 1.1.3 | **bb3**

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r1 :: d, b

- i didn't read the passage carefully enough, entirely missing one of the crucial points.
  - i could have found this out if i had been more rigorous with all the words in my answer choice (ie. rigorous) lesson: consider every word, and read the frickin passage! \* r3,4 :: db, aa
- the trait "unfriendly" does not correspond to losing the friendship of one person
- and plural is not the same as singular?

lesson: #revisit this, idk \* r7 :: b, a

- man. the word "equality" in the description of one relates them all together. look for the general case!

lesson: when stuck between two choices, with seemingly contradictory evidence, look for things that generalize. \* r11 :: b, a

lesson: make **sure** you are reading the right paragraph. check line numbers! if a couple of the answers are complete nonsense, then that can clue you in that you might be in the wrong section. \* mnc12 :: b, a

i average  $(2 - 4)/2 = -2..$

lesson: be careful with averages! \* mcn13 :: a, b

ran out of time here, couldn't find a quick enough way so geussed! could have done it quickly enough if i had just backsolved.

lesson: for complex equations, think about just plugging in something like  $x=1$  and simplifying! \* mcn14 :: b, a

again out of time. lesson: remember that you can factor things out of radicals! / **mcn15 lesson: you can attack larger fractions in your head! for ratios, think about what /needs** to happen for the statement being asked to be true. \*/ mnc19 :: a, c got this wrong because i added instead of subtracted. more specifically, flipped the polarity of sizes in the units. in the future, lesson: convert between units first! /\*\* mnc23  $\sin(a) = \cos(b)$  means that  $a+b$  are complementary! so, they  $=90$  remember remember that  $\sin(a) = \cos(90-a)!!$

lesson: whenever you see equated trig functions, replace them with  $90-a$  to get equalitys! \* mnc24 when defining equations, set the vars in terms of what we know. and a lack of is a negative number

when you dont know how to put together a system of euqations, just start assigning variables! / **mnc30 isolate what we know, and then reflect convert things to equations – "is" equals "="** / ## blb 5 \*/ c19 :: d, b i got this wrong because i wasnt sure about 30,60,90 triangles. i should have checked which sides were which! make sure to check sides. lesson: match up your sides! know your triangles! /\* c26 :: a, b i got this wrong because i simplified to find a side length instead of the perimeter. i got too caught up, and didnt think to ask myself again, "what am i solving for? what do i have?" lesson: ALWAYS ask yourself what you are *actully* solving for and also what you got \*/ c29 :: c, b i answered the positive instead of the negative! got too tunnel vision in the graph. lesson: always glance at the other answer choices, or consider them before you do the question! /\* c35 :: 8, 13 tinspire only gives one set of answers for polynomial with nsolve. instead, use polyRoots! lesson: if you get an answer that doesnt make sense.. look again! if you have a sqaured term, then you can get two possible answers! / ## **blb9 / w7** :: a, d i got this wrong because i didn't know what i was reading. i didn't understand the difference between lohi and this new species, which would have made it obvious.

lesson: think about what is being referred to, espically if what looks like the right answer isnt very strong. \* nc6 :: c, b i got this wrong because i didn't answer the question! i solved for the circumfrance, and forgot to subtract the original lenght.

lesson: espically for line / geo questions, CHECK WHAT you are ACTULLY supposed to answer VS what you just solved for before moving on. \* nc111: d, b i got this wrong because i got an answer which worked, and didnt consider that others could as well. in the future, whenever you can divide both sides by x, that means that 0 is a solution!

lesson: consider the other answers before you submit, especially if they contain components of the right answer. \*\* nc15 :: d, b i got this wrong because i forgot to sqaure my x when i sqaured both sides. also, **radicals are always positive on the sat.** this makes sqauring both sides of an equation **not algebraicly sound\***

lesson: be super careful with sqauring equations and negatives! remember, radicals are always positive!! if it's simple, just plug and chug. \* c16 :: d,b i got this wrong because i didn't regognize the different between constants and variables.

lesson: if their is an equation with two many things to solve for, things have to cancel out! look for how to cancel things out. look for terms that appear on one side but not the other. \* c33 :: 10, 8 i got this wrong because, when finding my probability, i didn't include my target number in my sample space.

lesson: make SURE to think about what your sample space actully is! \* c30: no answer i got this wrong because i wasn't willing enough to round! remember, always geuss if out of time

lesson: be ok with rounding for graph questions. use logic and estimation over precise solving. / ## **bb10 / c31** :: 3,6 i got this wrong because i wrote the number i rounded off instead of the right number.

lesson: when you have to round, DOUBLE CHECK after you round. be aware that you could just be writing

the entirely wrong thing. \* c30 :: b, a

i got this wrong because when i wasn't careful enough about squaring. when squaring  $2x$ , it's  $(2x)^2 = 4x^2$ . remember to also square the coefficient

lesson: be careful about squared terms. make sure you square coefficients when necessary / ## **bb8** / r9 :: a, c i got this wrong because i was wrong about the word emphasize. you can emphasize something that hasn't been said before!

lesson: if the right answer doesn't really make sense, **really** consider your assumptions. sometimes, words can be used differently. \*/ w15 :: a, c i got this wrong because i was too focused on the idea of concision and grammar. writing is more than grammar! lesson: conclusions need transitions! transitioning from previous ideas to new ideas is required. /\* w16 :: b, a i got this wrong because not sound blackbook advice. only use the who/whom thing when they are explicitly asking you about it! and use your ear! the reason why the right answer is better is because it places the subject closer to its pronoun ("both")

lesson: trust the ear! think about placement of operators and subjects! /\* w29 :: c, b i got this wrong because i got too caught up in the sandwiches for em dashes and commas. lesson: if an em dash is an answer, consider it with the sandwiching rule **and** on its own! same goes for commas. \*/ w35 :: c, d

i got this wrong because i ignored the parenthetical phrase. you can't always do this! the parenthetical phrase made it so that only one answer was correct, because it was referring to something that needed to be at the end of the sentence.

lesson: consider what concepts need to be at the end and beginning of a sentence, especially if it doesn't make sense! check out parentheticals as well \* w39 :: c, b

don't be so quick to eliminate things if you don't know what they are testing you on! lesson: again, be super wary about what is mentioned at the end of the previous sentence and the beginning of the next sentence! \*/ w42 :: b, d i got this wrong because i didn't read the whole sentence. lesson: make sure to read the whole sentence and listen for if it sounds right! this way, you can catch tricks! /\* nc9 :: c, a was using radius instead of diameter.

lesson: used to working with radius. watch out for diameters! \* nc10 :: b, c i got this wrong because i wrote down the number 200 instead of 202!

lesson: double check what numbers you are putting down for language design questions. look at the answers, check what mistakes they could be looking for. /\* nc10 :: 3,  $\frac{3}{2}$  i got this wrong because i dropped a sign! lesson: just do out the steps, you have time! be extra careful about it! plug shit back in to make sure it makes sense \* lesson: *you have to divide your variables!* \* c37 :: 576, 556 i got this wrong because i trusted graphs not exactly. lesson: look for exact info on grid in questions, especially if it is given to you! make sure to double check correspondence of graphs and tables. /\*

## 1.2 | ka math diagnostic

percents :: i got this wrong because i made an invalid assumption about other people's logic. i should have simply double checked.

lesson: don't make assumptions about other people's logic! just do the math! / ## **ka writing** / transition question : i got this wrong because i didn't consider the previous sentence and how it connects to the next sentence closely enough. i also fell for one of the traps: contradicting info, when the info was different.

lesson: for transitions, CONSIDER what the previous sentence "opens" and the next sentence "receives" also, consider what the info / stats are actually referring to! \*

## 1.3 | blb7

r28 :: a, b

i got this wrong because i didn't look at the things surrounding my evidence. lesson: context can imply! think about, this but that. \* r36 :: a, b i got this wrong because i didn't consider every part of the question. every word counts! every part needs backing! also, when struggling, look to the question! see what answers the question more explicitly.

lesson: check every part of the answer. look to the question and see what addresses it more explicitly if struggling. \* r39 :: a, c i got this wrong because i interpreted the text! something had direct weak evidence, but evidence nonetheless! no interpretation

lesson: don't interpret the text! it's not about the content! it's truly modernist. \* w2 :: b, a i got this wrong because i fucked up affect / effect.

lesson: affect is a verb, but effect is a noun! you can affect something, or produce an effect. \*/ nc15 :: c, d i got this wrong because i didn't follow distribution rules. pay attention to parens! pay attention to all the different terms, and what mistakes they could cause you to make! lesson: multiplication distributes! pay attention to parens! don't cross shit out! if you think about doing so, make sure it's validated! things always matter. /\* nc20 i got this wrong because i added to the thousands place instead of the hundreds place. lesson: write out all of your operations! consider each one! remember, you can fuck up addition by placement of tens! \* c36 ::  $31/3$ , 6 i got this wrong because i wasn't careful enough about how i was multiplying my fractions. WRITE IT OUT! also, look for pythagorean triples! if they give you the ratio of a sin function, see if that tells you the side lengths!

lesson: write out your algebra. be careful with ratios. consider trig functions as clueing you in on pythagorean triples \*

## 1.4 | blb7, again

w19 :: a, b i got this wrong because i messed up what part of the sentence the word was referencing.

lesson: if you are struggling to find out what part of the sentence is being reference, try changing the sentence to being plural / singular, and see what actually changes! \* nc14 :: c,a i got this wrong because, when i subbed in my variable, i forgot to keep the coefficient.

lesson: be careful about coefficients! consider writing out exactly what you are doing whenever you substitute! \*/ nc12 :: 6620, 6632 i got this wrong because i fucked up my subtraction. stop it. use the /actual subtraction stuff.

lesson: use the actual subtraction method! don't fuck around. \* c36 :: 4, 6 i got this wrong because i wrote down  $3 \times 3$  as 6, not 9.

lesson: when something is going wrong, redo, all the assumptions! nothing is sacred! you cannot trust anything. look at every part of what is considered truth. \*

## 1.5 | blub6

nc20 ::  $1/3$ ,  $1/6$  i got this wrong because i used  $\pi r^2 = c$  instead of  $2\pi r = c$ . always make sure to double check you are using the right equation! also, inverses of things you are dividing by is simply  $1/(\text{whatever you are dividing by})$ . don't confuse yourself.

lesson: pause for one second, sanity check the equation you are using. \*/ nc12 :: tip if you see a subtraction, think about making it viable. ie. multiply the top and bottom to get it to equal the same thing, and then it should / might fall out. /\* nc13 :: tip if an equation has no real solutions, that means that it never touches the x axis. you can put it into vertex form and find what needs to happen for the y value to be appropriate

(higher than 0 or lower depending on if the parabola is facing upwards or downwards). \* nc19 :: geuss 2, 1.5 i got this wrong because i didn't factor in the number i was adding into the divisor for the average. tip: convert decimals / percentages to numbers! either on paper or in head.

lesson: write it out on paper. percentages of things equaling some other percentage is just averaging. \*\*/ c31 :: 9, 10 i got this wrong because i conceptually messed up what it means to *increase*. if one side of an equation is greater than the other, and you want to set them equal, then you have to /subtract\* the increase, not add it.

this is every evident when you just have an intermediary variable. do that! lesson: think about that it means to increase! use intermediary variables! / ## **october 2019** / nc13 :: guess, a i got this wrong because i used the equation for a cylinder instead of the equation for a cone.

lesson: ALWAYS check what equation you are using! after you write down the equation, check it! think, "what is this an equation for?" and then check the question. / **nc15 :: tip remember vertex form bro!** **jeezzz**  $a(x - h)^2 + k \rightarrow \text{vertex } (h, k)$  / nc18 :: tip setting  $y = \sqrt{x}$  is a valuable trick when you have to deal with an x and a root x term! just remember to square the answer on the other end of solving. \*/ nc12 :: tip multiply the top and bottom of fractions w/o expanding!! and can get all the bottoms to be equal and divide everything out. /\*

## 1.6 | april 2019

nc6 :: c, b i got this wrong for two reasons: - first, i was too reluctant just to do the algebra. don't be reluctant — just do it out. - second, when distributing, i did not account for the negative sign. always think about the sign when distributing!! lesson: just do it. espec when there are no exponents. also, distribute WITH THE SIGN. be wary that this is a mistake they are looking for, also. \*/ nc15 :: c, b i got this wrong because i didn't carry my logic through, and because i didn't know some key equations about parabolas. lesson: REMEMBER, the x value of the vertex of a parabola is  $-\frac{b}{2a}$ !! also, if  $x+1$  is a solution, that means that  $x = -1$ ... solve things all the way through! /\* nc18 :: 8, 6 i got this wrong because i made a simple arithmetic error:  $24-10 = 12$ . lesson: be RIGORIOUS about checking the answers. no, wishy washy "yeah that looks right." DO it OUT. \* ## may 2021

## 2 | To review

- polynomial division [ x ]
- remainder theorem [ x ]
- using quadratic formula [ x ]
- box and whisker plots [ x ]
- circles equations! centers [ x ]
  - completing the square [ x ]
- unit conversions [ x ]
- vertex form [ x ]
- 30-60-90 triangles [ x ]
- radian and degree conversions [ x ]
- Pythagorean triples [ x ]



- unit circle! radians! ~[ x ]
- long division (learn) [ x ]

### 3 | misc / scratch

$$(52-5)+(44-10)+(20-9)+(38-7)$$

$$33+37$$

$$700$$

$$710 \ 52 \rightarrow 40 \ 43 \rightarrow 39$$

$$790$$

$$17 + 35 = 52 \ 52 \rightarrow 750$$

$$790+750 = 1540$$

$$51 + 37$$

$$51 \rightarrow 39 \ 37 \rightarrow 33$$

$$720$$

$$17 + 36 \rightarrow 780$$

$$48 \rightarrow 37 \ 43 \rightarrow 39 \rightarrow 760$$

$$18 + 37 = 55 \rightarrow \rightarrow 760$$

$$51, 43$$

$$51 \rightarrow 39 \ 43 \rightarrow 39 \rightarrow 780$$

$$18 + 37 \ 55 \rightarrow 760$$

### 4 |