

#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/ @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 ::  $\frac{8}{9}$ , 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,

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

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, espically 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 guess 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, 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! \*

## 2 | To review

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

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

$$33+37$$

$$700$$

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

$$790$$

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

$$790+750 = 1540$$

$$51 + 37$$

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

$$720$$

$$17 + 36 \rightarrow 780$$