EVERY REAL PAST PAPER · MARCH TO AUGUST 2026

Your test is in days. What should you actually practise?

I read every real SAT Math paper from March to August, question by question, and worked out which ones the test keeps reaching for. Then I rebuilt **the five that kept coming back**, each one worked all the way through, the way I would do it with you on a call.

Here is the part nobody tells you. The SAT does not invent new questions every sitting. It reuses templates: the same setup, the same trap, different numbers. Once you can recognise the setup, the numbers stop mattering.

So this is not a list of topics to revise. It is five questions built on the exact patterns that keep coming back, with the receipts for each one and my full working.

Tan

HOW TO USE IT Try the question **before** you read my working. Getting it wrong first is what makes it stick. That is the whole point of the file.

EVERY QUESTION

The receipts

The months and modules where that template kept showing up.

EVERY QUESTION

My full working

One step per line, in order, the way I would write it out for a student.

EVERY QUESTION

The shortest route

How I would actually do it under time, not the long way round.

Hi, I'm Tan

The friend who's good at Desmos

In grade 4, I was so weak at math that my teacher made me stay after school for extra one-on-one lessons, **every single day**. I know exactly how it feels when numbers make you feel stupid.

That kid later taught himself to an **SAT Math 800**, earned an engineering degree, and has spent the last two years tutoring students at **international schools across three continents**, from "what is 2 - 5?" to 750s.

I'm not the genius tutor. I'm the one who **remembers what being lost feels like**, and teaches the way I wish someone had taught me. Reading every paper from March to August to work out what the test actually repeats is the kind of thing I would do for a student. So I did it for you.

SAT Math 800 | **60+ students taught** | **Students on 3 continents** | **B.Eng. Civil Engineering**

A few students who put these to work

Nicknames only, shared with permission. Every score and quote below is real.

580 → 750
Mossy

"Thank you so much for teaching me so well, bro." Stuck 580–620 for months after a big-name prep course. Ended up the highest in his friend group.

650 → 710
Alisa

"Hit my target, 710! You teach SO well." Reached her 700+ goal two weeks after we started.

670 → 710
Nova

"Thank you for the killer SAT Math techniques, teacher." Used that score to get into his target university.

NO GUESSING

How I picked these five

1 Every paper from March to August

Not a topic list and not a syllabus. The actual sittings, read question by question, right through **March, May, June and August 2026**.

2 Sorted by template, not by topic

Two questions about quadratics can be nothing alike. Two questions with the **same setup and the same trap**, carrying different numbers, are the same question wearing a different coat. Grouping them that way is the whole method, and it is the reason this file is five questions instead of five chapters.

3 Ranked by how many months keep it

Not by how often it turns up in total. A template appearing three times in one paper is **that paper's habit**. A template appearing in March, then May, then June, then August is **the test's habit**, and that is the thing worth practising with days left.

Being straight with you about what this is. This is a frequency count, not a leak, and nobody outside College Board knows what is on your form. What it does tell you is where the test has been spending its questions for months running. If you have a handful of days left, that is the best guide there is. Every question in here is rebuilt with my own numbers, so treat them as practice, not as a paper to memorise.

1 ADVANCED MATH Rewrite it to show the minimum

WHY THIS ONE

SEEN IN March M2 · August M1, M2

The strongest single item in the whole set. It has come back in March and again in August, and the shape barely moves: a factored quadratic, a shift, and a question that wants vertex form. Watch for the swap, where it asks instead for the form that displays the **x-intercepts**. Same move, factored form rather than vertex form.

1 Mark for Review

$$f(x) = (x - 4)(x + 6)$$

The function f is defined by the given equation. The function g is defined by $g(x) = f(x - 3) + 5$. Which of the following equations is an equivalent form of $g(x)$ that displays the minimum value of g as a constant or coefficient?

(A) $g(x) = (x - 7)(x + 3) + 5$

(B) $g(x) = (x - 2)^2 - 20$

(C) $g(x) = (x + 2)^2 - 20$

(D) $g(x) = x^2 - 4x - 16$

Have a go at it, then turn the page for my working.

1 MY WORKING Rewrite it to show the minimum

WALKTHROUGH

1. We want the minimum of g, so let Desmos draw it. Type f in exactly as the question gives it.

   $f(x) = (x-4)(x+6)$

2. Then type g underneath, exactly as the question defines it. Do not expand anything, Desmos already knows what f is.

   $g(x) = f(x-3)+5$

3. Two curves come up. Red is f, blue is g. Click the bottom of the blue one and Desmos hands you the minimum point.

   $(2,\ -20)$

4. So the minimum value is -20. Only B and C have -20 sitting there as a constant you can point at, so it is one of those two.

5. Equivalent form means **same graph**. Type choice B in and see where it lands.

   $(x-2)^2 - 20$

6. It draws exactly the same curve as g. Same graph, and the -20 is the minimum. That is B.

1 ON DESMOS · step 3 Rewrite it to show the minimum

1 Mark for Review

$$f(x) = (x-4)(x+6)$$

The function f is defined by the given equation. The function g is defined by $g(x) = f(x-3) + 5$. Which of the following equations is an equivalent form of $g(x)$ that displays the minimum value of g as a constant or coefficient?

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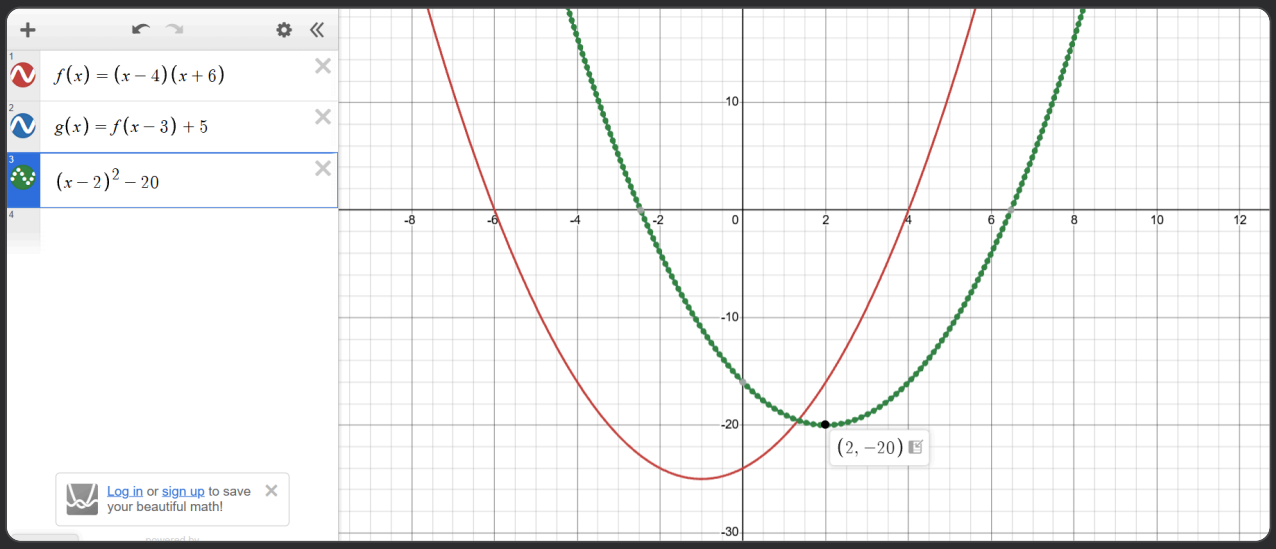
(D) $g(x) = x^2 - 4x - 16$



Red is f, blue is g. Clicking the bottom of g gives $(2, -20)$. The green dots are choice B, sitting exactly on top of g, which is why the blue curve disappears under them.

ANSWER B

2 DATA ANALYSIS The line of best fit

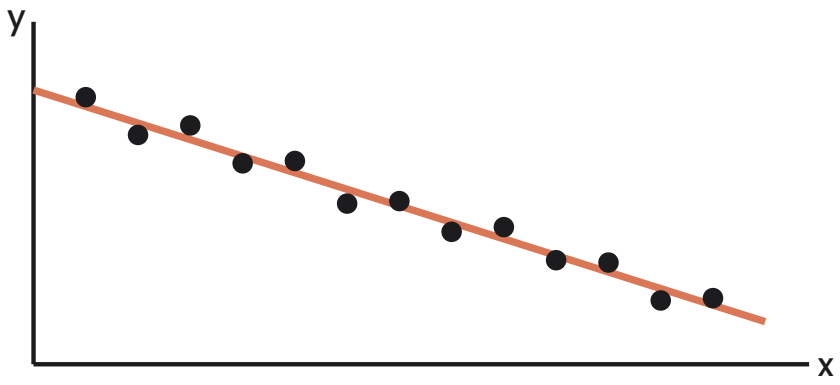
WHY THIS ONE

SEEN IN March M1, M2 · May M1 · June M1 · August M1, M2

This is the one template that turned up in every month I looked at, and more than once inside some of them. If you learn one thing from this file, learn this one. It is the closest thing to a guaranteed question on your test.

2 Mark for Review

The scatterplot shows the relationship between two variables, x and y, with a line of best fit drawn through the data.



Which of the following equations best represents the line of best fit shown?

(A) $y = 11.6 + 0.7x$

(B) $y = 11.6 - 0.7x$

(C) $y = -11.6 + 0.7x$

(D) $y = -11.6 - 0.7x$

Have a go at it, then turn the page for my working.

2 MY WORKING

The line of best fit

WALKTHROUGH

1. Look at the line, not the dots. Going left to right it falls, so the gradient is negative.

   $-0.7 \quad \text{not} \quad +0.7$

2. That leaves B and D. They are the only two carrying the negative gradient, and you have not calculated anything yet.

3. Now the y-intercept. The line cuts the y-axis **above** zero, so the number on its own is positive.

   $+11.6 \quad \text{not} \quad -11.6$

4. Negative gradient, positive intercept. That is B.

   $y = 11.6 - 0.7x$

ANSWER **B**

3 PROBLEM SOLVING Margin of error

WHY THIS ONE

SEEN IN March M2 · May M2 · August M1, M2

It ran in March, May and August. There are only **two versions** of it and both are live: this one, and the one where the sample size doubles. Learn both and you have covered the whole template.

3 Mark for Review

A random sample of $1{,}100$ registered voters in a city were surveyed about a proposed transit measure. Based on the survey, it is estimated that 46% of all registered voters in the city support the measure, with an associated margin of error of 3.2%.

Which of the following is the most appropriate conclusion?

(A) Exactly 46% of all registered voters support the measure.

(B) It is plausible that between 42.8% and 49.2% of all registered voters support the measure.

(C) More than 49.2% of all registered voters support the measure.

(D) There is a 46% chance that a randomly chosen voter supports the measure.

Have a go at it, then turn the page for my working.

3 MY WORKING

Margin of error

WALKTHROUGH

1. The margin of error is not a warning label. It is an **instruction to build an interval**: take the estimate, go down by it, go up by it.

2. Go down first.

   $$46 - 3.2 = 42.8$$

3. Then go up.

   $$46 + 3.2 = 49.2$$

4. So the plausible range runs between those two. That is B.

   $$42.8\% \text{ to } 49.2\%$$

5. **The trap is A, and it is the popular wrong answer.** A margin of error exists precisely because you do *not* know the exact percentage. Any choice with the word **exactly** in it is wrong on this template, every time.

6. **Now the other version**, because it is just as likely to be the one you get. Same setup, then: *the survey is repeated with a sample twice as large. What happens to the margin of error?*

7. It gets **smaller**. That is the whole answer. A bigger sample gives you a tighter estimate. It does not halve and it does not double, so do not reach for 6.4% just because 6.4 is 2×3.2.

ANSWER **B**

4 ALGEBRA The sum of the solutions

WHY THIS ONE

SEEN IN March M2 · May M1 · August M2

March, May and August, and it is the one on this list you can answer in about five seconds. That makes it free time you can spend on the hard questions at the end of the module.

4 Mark for Review

$$3\,|x - 7| + 4 = 19$$

What is the sum of the solutions to the given equation?

This one is a grid-in. You type the answer in, there are no choices.

Have a go at it, then turn the page for my working.

4 MY WORKING

The sum of the solutions

WALKTHROUGH

1. This is a single-variable equation, so you do not have to rearrange anything. Type it into Desmos exactly as it is written.

   $$3\,|x-7|+4=19$$

2. Desmos draws two vertical lines. Those lines **are** the solutions. Zoom in and read where they sit.

   $$x=2 \quad \text{and} \quad x=12$$

3. The question asks for the sum, so add them.

   $$2+12=14$$

4. **If it is a quadratic instead**, and it sometimes is, the same question has an equally short answer. For $ax^2+bx+c=0$ the solutions always add to $-\frac{b}{a}$.

   $$x^2-90x-18=0$$

   $$\text{sum}=-\frac{-90}{1}$$

   $$\text{sum}=90$$

4 ON DESMOS · step 2

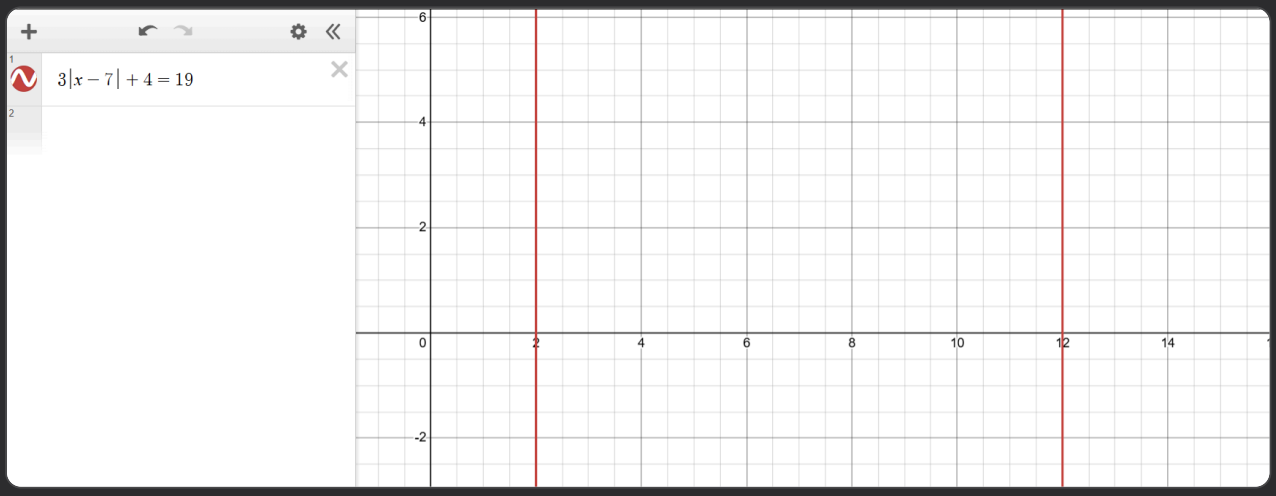
The sum of the solutions

4 Mark for Review

$$3\,|x-7|+4=19$$

What is the sum of the solutions to the given equation?

This one is a grid-in. You type the answer in, there are no choices.



One variable, so Desmos draws the solutions as vertical lines. Zoom in and read where they cross: $x=2$ and $x=12$.

ANSWER **14**

5 ADVANCED MATH

Same growth, different clock

WHY THIS ONE

SEEN IN March M2 · June M2 · August M1, M2

It has come back in March, June and August, and it is the hardest thing on this list. It is where the Module 2 points are, and almost everybody loses them the same way: by multiplying when they should be raising to a power.

5 Mark for Review

$$f(x) = 24\,(1.90)^{\frac{x}{4}}$$

The function f is defined by the given equation. The value of $f(x)$ increases by $p\%$ for every increase of x by 8. For which of the following functions, where n is a positive constant, does the value of $g(x)$ increase by $p\%$ for every increase of x by 1?

(A) $g(x) = n\,(1.90)^x$

(B) $g(x) = n\,(3.61)^x$

(C) $g(x) = n\,(3.80)^x$

(D) $g(x) = n\,(7.60)^x$

Have a go at it, then turn the page for my working.

5 MY WORKING

Same growth, different clock

WALKTHROUGH

1. Define f in Desmos exactly as it is given.

   $f(x) = 24\,(1.90)^{\frac{x}{4}}$

2. It says f goes up by $p\%$ every time x goes up by 8. So start at the easiest place, $x = 0$, then step up to $x = 8$, and ask Desmos for both.

   $f(0) = 24$

   $f(8) = 86.64$

3. That jump **is** the increase. Run percentage change on the two numbers: new minus old, over old, times 100.

   $$\frac{86.64 - 24}{24} \times 100$$
   $$= 261$$

4. So $p = 261$. Now g has to do the same thing for a step of **1**, and its exponent is a plain x, so one step applies the base exactly once. That means **the base is the growth factor**, and a growth factor is always $1 + \frac{p}{100}$.

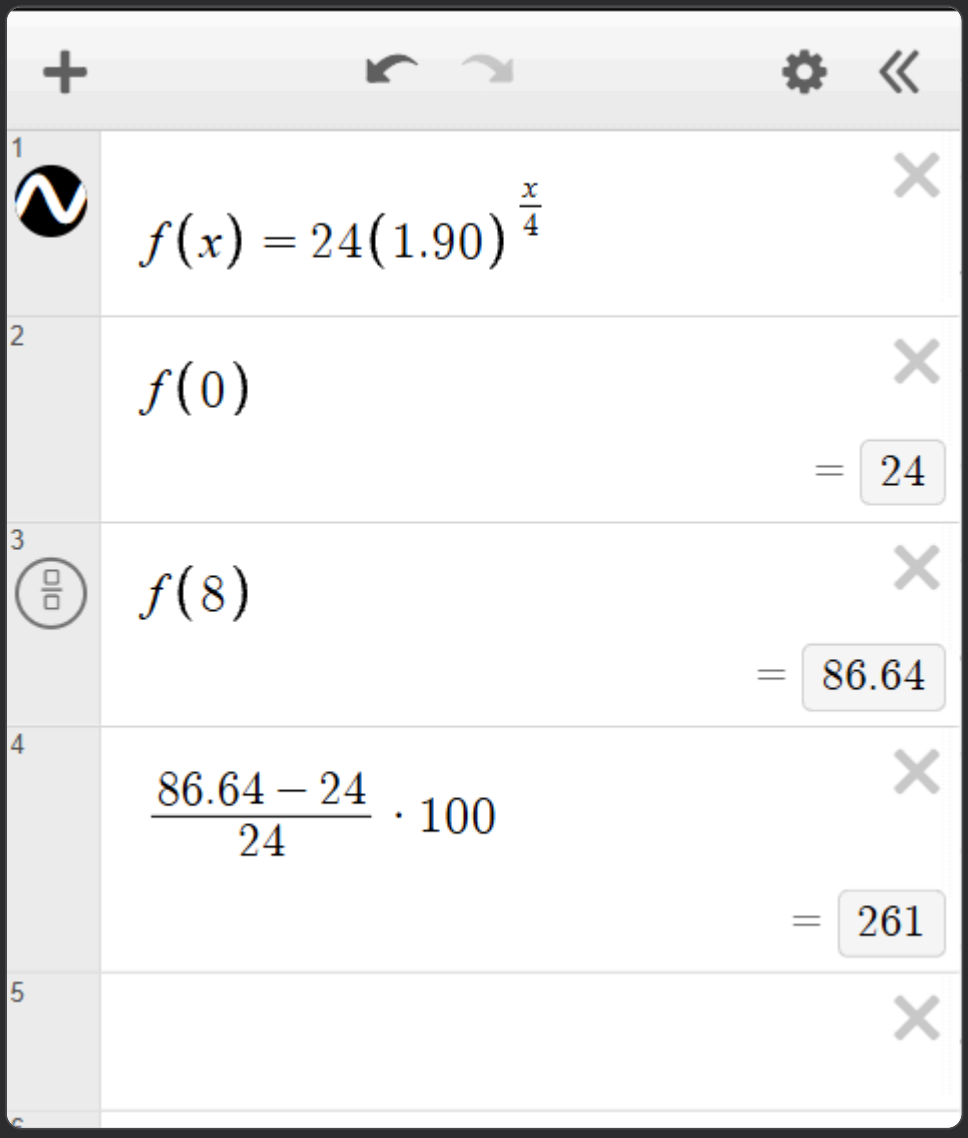
   $$1 + \frac{261}{100} = 3.61$$

5. So find the choice whose base is 3.61. That is B.

   $g(x) = n\,(3.61)^x$

5 ON DESMOS · step 2

Same growth, different clock



Define f, ask Desmos for $f(0)$ and $f(8)$, then run the percentage change on those two numbers. It comes out at 261.

ANSWER **B**

THREE MORE, NO WORKING

The ones that nearly made it

These came back almost as often. They did not get a full page each, but they are real patterns and they cost you nothing to know. If you see one on test day, you will know what it wants.

Unit conversion, given the conversion factor

SEEN IN March M1, M2 · May M2 · June M1 · August M1, M2

It has the cleanest repeat in the whole set. March and June ran **the same question** with one number changed: a speed in inches per second, converted to feet per second, with 12 inches = 1 foot handed to you. It only missed the top five because it is a warm-up question rather than a scoring one. Write the units as fractions and cancel them like numbers.

Percent up, then percent down

SEEN IN March M2 · August M1, M2

A value rises by one percentage and then falls by another, and you are asked for the net change. Never add the two percentages. Multiply the factors: a rise of 166% then a fall of 14% is 2.66 times 0.86. Then subtract 1 to turn it back into a percentage.

One real solution, so the discriminant is zero

SEEN IN March M2 · May M2 · August M2

March and August both lean on it, and it likes to sit right at the end of Module 2. Whenever a question says exactly one real solution, no real solution, or asks which value is not possible, it is asking about $b^2 - 4ac$. Set it to zero for exactly one, below zero for none.

AFTER THE TEST

If the score comes back lower than you wanted, that is not the end of it. It is the first real information you have ever had.

Most people retake, and the ones who jump on the retake are not the ones who grind more practice tests. They are the ones who find the three or four mistakes they keep repeating and kill them. That is hard to do alone, because the mistakes you repeat are exactly the ones you cannot see.

Got your score back and it is not the one you wanted?

Book a free 25-minute call. Bring your score report and we will work out exactly where the points went, and what to fix before the next sitting. No pressure, no pitch, just a plan.

Book a free call →

satmathwithtan.netlify.app

BEFORE YOU SIT IT

Go back and redo every question you got wrong, without reading my working

If you cannot reproduce the steps from memory, you have not learned it yet. That is the whole difference between following an explanation and being able to use it under time pressure.