

GMAT Quant Basics: Diagnostic

Nine questions. Find out which topics to study first.



How to use this. Give yourself about 60 seconds on each. These questions are deliberately simpler than full GMAT questions and should be quite quick if you're comfortable with the necessary foundations. If you need much longer than that, count it as a topic to work on even when you get the answer right. Write your answer and your time in the boxes, use the space below each question for working, then check the key on the last page.

No calculator. You don't get one on test day, so don't use one here.

QUESTION 1 FRACTIONS

A cook starts with 1 cup of flour, then adds $\frac{1}{2}$ cup of sugar and $\frac{1}{3}$ cup of honey. She makes 4 identical portions of this mix in total. The total mix is poured into jars that each hold $\frac{2}{3}$ cup. How many jars can she fill completely?

- A. 8
- B. 9
- C. 10
- D. 11
- E. 12

Your answer

Time (secs)

QUESTION 2 DECIMALS

A civil engineer measures one building block as 1.8766×10^{-1} meters. She calculates how much space she needs to fit 100 of them, then rounds the result to the nearest hundredth of a meter. What result does she get?

- A. 18.76
- B. 18.77
- C. 18.766
- D. 18.8
- E. 187.66

Your answer

Time (secs)

QUESTION 3 PERCENTAGES

A 3-piece suit costs 2,000 dollars in total. The jacket is sold separately for 40% of the total suit price. The jacket is then marked down by 30%, then marked down again by 40%. What is the final price of the jacket?

- A. 32 dollars
- B. 264 dollars
- C. 336 dollars
- D. 434 dollars
- E. 3,850 dollars

Your answer

Time (secs)

QUESTION 4 EXPONENTS

What is the value of

$$\frac{(-2)^3 \times (-2)^{-1}}{((-2)^2)^2}$$

- A. $-\frac{1}{4}$
- B. $-\frac{1}{2}$
- C. $\frac{1}{4}$
- D. $\frac{1}{2}$
- E. 1

Your answer

Time (secs)

QUESTION 5 ROOTS

What is the value of

$$\frac{\sqrt{12} \times \sqrt{3}}{\sqrt{4}} + \sqrt[4]{16} - (-8)^{1/3}$$

- A. 3
- B. 5
- C. 7
- D. 9
- E. 11

Your answer

Time (secs)

QUESTION 6 EQUATIONSIf $x^2 + 6 = 5x$ and $x + y = 5$, and $x > y$, what is y ?

- A. 1
- B. 2
- C. 3
- D. 5
- E. 7

Your answer

Time (secs)

QUESTION 7 **INEQUALITIES**

Given $x^2 < 9$ and $-4 < y < -1$. Which of the following is the range of $x - y$?

- A. $-2 < x - y < 7$
- B. $1 < x - y < 4$
- C. $-7 < x - y < 2$
- D. $-2 \leq x - y \leq 7$
- E. $-3 < x - y < 3$

Your answer

Time (secs)

QUESTION 8 **SIGNS & ABSOLUTE VALUES**

Given $x^2 \times y \times |z| < 0$, $xyz > 0$, and $y + z > 0$. Which of the following is always true?

- A. $\frac{x}{-y} > 0$
- B. $\frac{-x}{yz} > 0$
- C. $\frac{|x|}{y} > 0$
- D. $\frac{-x}{-yz} > 0$
- E. $\frac{-y}{-x} < 0$

Your answer

Time (secs)

QUESTION 9 **DIVISIBILITY**

Which of the following is divisible by 4, 5, 8, 9, and 13?

- A. 1,173
- B. 1,800
- C. 2,340
- D. 4,680
- E. 3,510

Your answer

Time (secs)

Answer key and what to study next

Every question you missed points at one video. Start with those.

Q	Answer	Topic	Watch this
1	D	Fractions	GMAT Fractions From Scratch
2	B	Decimals	GMAT Decimals From Scratch
3	C	Percentages	GMAT Percentages From Scratch
4	C	Exponents	GMAT Exponents From Scratch
5	C	Roots	GMAT Roots From Scratch
6	B	Equations	GMAT Equations From Scratch
7	A	Inequalities	GMAT Inequalities From Scratch
8	D	Signs & absolute values	GMAT Signs & Absolute Values From Scratch
9	D	Divisibility	GMAT Divisibility Explained

How to read your score

7-9 correct, comfortably	Your foundations are solid. Skim the videos for the ones you missed and move on to practice questions.
4-6 correct	Normal for someone coming back to this after a few years. Watch the videos for every topic you missed, in course order.
0-3 correct	Also normal, and the course is built for exactly this. Start at the beginning and work through in order.
Right answers, but slow	Look back at your times. Anything over 90 seconds here, treat as a gap. You get about two minutes for a full GMAT question, and these are simpler than that, so the arithmetic inside them has to be close to automatic.

The full course

Every topic above has its own video, free, in course order.

[Watch the full GMAT Quant Basics course on YouTube](#)

More free GMAT prep at gmatpanda.com

