GRE 2024 Quant Practice Test 7

Time Allowed :	Maximum Score :	Sections :
About 3 hrs 45 mins	340 (Verbal+Quant) + 6 (AWA)	3 Main + 1 Unscored

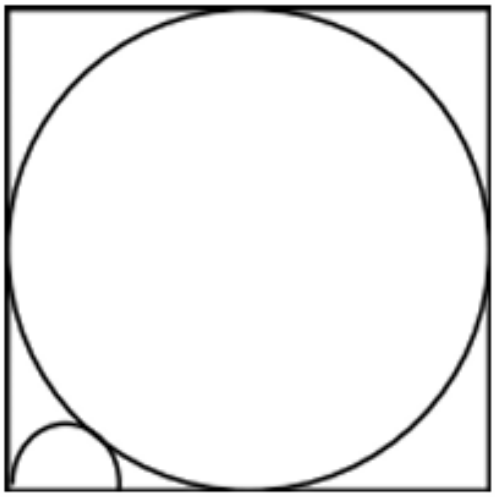
General Instructions

Read the following instructions very carefully and strictly follow them:

1. The GRE General Test has a duration of about 3 hours 45 minutes, divided into six sections (including one unscored/experimental section).
2. The test consists of the following sections:
   - **Analytical Writing Assessment (AWA)** – 2 tasks, 30 minutes each.
   - **Verbal Reasoning** – 2 sections, 20 questions each, 30 minutes per section.
   - **Quantitative Reasoning** – 2 sections, 20 questions each, 35 minutes per section.
   - **Unscored/Research Section** – May appear anytime (not counted in score).
3. Scoring Pattern:
   - Verbal Reasoning: 130–170 (in 1-point increments).
   - Quantitative Reasoning: 130–170 (in 1-point increments).
   - Analytical Writing: 0–6 (in half-point increments).
4. No negative marking is applied in the GRE. Test-takers are advised to attempt all questions.
5. Only an on-screen calculator is allowed for Quantitative Reasoning. No physical calculators, mobile devices, or electronic gadgets are permitted.
6. Breaks: A 10-minute break is provided after the third section; one-minute breaks between other sections.

QUANT PRACTICE PAPER

1. In the square shown above, the side is 2 units. The circle and the semicircle having its diameter along a side of the square, touch as shown. What is the radius of the smaller semicircle?



(A) 14
(B) $12\sqrt{12}$
(C) $2\sqrt{12} - 1$
(D) $12\sqrt{12}$
(E) 12

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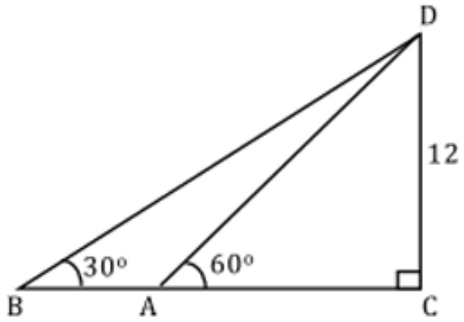
2. In the diagram shown above, if CD = 12, what is the length of AB?



(A) $33\sqrt{33}$
(B) $43\sqrt{43}$
(C) $83\sqrt{83}$
(D) $123\sqrt{123}$
(E) $163_{\surd}$

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3. A family consists of the father, mother, son, and daughter. In the year 2015, the son, then aged 25 years, moved away. The average age of the members, excluding the son, in the year 2018 is 24 years. What was the average age of the family in 2012?

(A) 17 years
(B) 18 years
(C) 19 years
(D) 20 years
(E) 21 years

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4. Ten friends wish to raise funds for a get-together. Six of them contributed \$60 each while each of the other four friends contributed \$60 more than the average contribution of all ten friends. What was the total contribution of the ten friends?

(A) \$100
(B) \$600
(C) \$800
(D) \$1000
(E) \$1200

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5. Per capita GDP of a country is defined as the ratio of the GDP, in million dollars, to the population, in millions, of the country. If the GDP of a country increased by 20

(A) 4.0%
(B) 14.0%
(C) 14.3%
(D) 15.0%
(E) 26.0%

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6. A man marks the price of an object at 20% above the manufacturing cost. He finally sells it at a discounted price and observed that the discount offered as a percent of the cost was the same as the profit he made as a percent of the initial marked price. What was his percent profit?

(A) 7.6%
(B) 9.1%
(C) 9.8%
(D) 10.0%
(E) 10.9%

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7. A store sells two pieces of electronic items, one at 20% profit and another at 10% loss, respectively, thereby making an overall profit of 6%. What is the ratio of the cost prices of the two items?

(A) 8 : 9
(B) 1 : 1
(C) 8 : 7
(D) 4 : 3
(E) 7 : 2

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8. The following data was observed for the variables x and y:

x	y
3	48
4	96
5	192

If $y = kx$, what is the value of $(kx)(kn)$?

(A) 3
(B) 4
(C) 6
(D) 8
(E) 12

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9. A sum of money, $\$P$, invested in a bank was found to become 4 times its value in every 4 years. If the value of the sum of money after t years is given by $P(1 + r)^t$, what is the value of r?

(A) 0.41
(B) 0.50
(C) 0.75
(D) 1.00
(E) 1.41

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10. A car has a fuel efficiency of FF miles per gallon if driven in city conditions. If the car was driven at a speed of DD miles per hour, how many liters of diesel was used to travel for hh hours? Assume 1 gallon = 3.8 liters.

(A) $38DF10h$ liters
(B) $19Fh5D19Fh5D$ liters
(C) $18Dh5F18Dh5F$ liters
(D) $19Dh5F19Dh5F$ liters
(E) $5Dh19F5Dh19F$ liters
