GRE Algebra Practice Test 7

Question 1

Solve for x.

$2^{x^2+4} = 32$

Possible Answers:

-5

$-1, 1$

-1

1

5

Correct answer:

$-1, 1$

Question 2

Solve for x.

$5^x = 25^4$

Possible Answers:

- 4
- 8
- 6
- 10
- 5

Correct answer:

8

Question 3

Solve for x.

$4^{2x} = 16^6$

Possible Answers:

- 8
- 10
- 12
- 6
- 4

Correct answer:

6

Question 4

Solve for x.

$1024^x = 2$

Possible Answers:

-10

$\frac{1}{10}$

2

$-\frac{1}{10}$

10

Correct answer:

$\frac{1}{10}$

Question 5

Solve for x.

$$1024^x = \frac{1}{2}$$

Possible Answers:

- -10
- $\frac{1}{10}$
- 10
- $-\frac{1}{10}$
- 2

Correct answer:

$$-\frac{1}{10}$$

Question 6

Quantitative Comparison: **Compare Quantity A and Quantity B, using additional information centered above the two quantities if such information is given.**

Quantity A	Quantity B
4^3	3^4

Possible Answers:

- The two quantities are equal.
- Quantity A is greater.
- Quantity B is greater.
- The answer cannot be determined from the information given.

Correct answer:

Quantity B is greater.

Question 7

Quantity A: $(-1)^{137}$

Quantity B: 0

Possible Answers:

- The relationship cannot be determined from the information given.
- Quantity A is greater.
- Quantity B is greater.
- The two quantities are equal.

Correct answer:

Quantity B is greater.

Question 8

2^{-5}

Possible Answers:

- $\frac{1}{32}$
- 2
- 32
- $-\frac{1}{32}$
- -32

Correct answer:

$\frac{1}{32}$

Question 9

Which of the following is not the same as the others?

Possible Answers:

2^{24}

4^{12}

16^{8}

64^{4}

$(\frac{1}{2})^{-24}$

Correct answer:

16^{8}

Question 10

Simplify

$2^{10} + 2^9$

Possible Answers:

$2^{18} \cdot 3$

2^{19}

2^{10}

$2^{10} \cdot 3$

$2^9 \cdot 3$

Correct answer:

$2^9 \cdot 3$