### **GRE Algebra Practice Test 9**

### **Question 1**

If one mile is equal to 5,280 feet, how many feet are 100 miles equal to in scientific notation?

Possible Answers:

 $528\times10^3$ 

528,000

 $.528\times10^{6}$ 

 $5.28\times10^{5}$ 

 $5280\times10^2$ 



Correct answer:

 $5.28\times10^{5}$ 

 $0.0075 \cdot 0.0126 = ?$ 

Possible Answers:

 $0.945\cdot10^{-5}$ 

0.000945

 $9.45\cdot10^{-5}$ 

 $9.45\cdot10^{-6}$ 



Correct answer:

 $9.45\cdot10^{-5}$ 

### **Question 3**

A five-year bond is opened with \$5000 in it and an interest rate of 2.5%, compounded annually. This account is allowed to compound for five years. Which of the following most closely approximates the total amount in the account after that period of time?

Possible Answers:

\$5811 \$6143 \$5657 \$5518

Jack has  $\$15,\!000$  to invest. If he invests two-thirds of it into a high-yield savings account with an annual interest rate of 8%, compounded quarterly, and the other third in a regular savings account at 6% simple interest, how much does Jack earn after one year?

Possible Answers:



### **Question 5**

If a cash deposit account is opened with \$7500 for a three year period at 3.5% interest compounded once annually, which of the following is closest to the positive difference between the interest accrued in the third year and the interest accrued in the second year?

Possible Answers:



# Quantity A: $x^2$ Quantity B: $x^3$ Possible Answers: Quantity A is greater. The relationship cannot be determined from the information given. The two quantities are equal. Quantity B is greater.

The relationship cannot be determined from the information given.

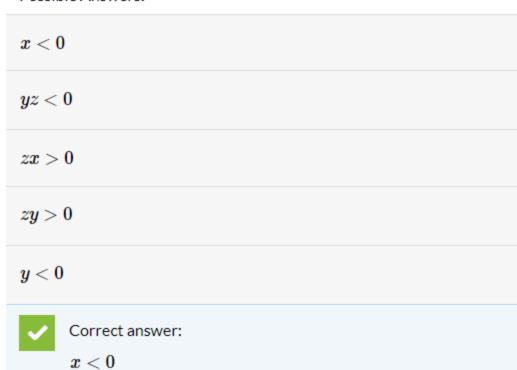
Question 7

Correct answer:

Quantitative Comparison

## If $x^7y^8z^{10} < 0$ , then which of the following must also be true?

### Possible Answers:



# Quantity A $7^{-5}$ Quantity B $49^{-3}$ Possible Answers: The realationship cannot be determined from the information given. The two quantities are equal. Quantity B is greater. Quantity A is greater. Correct answer: Quantity A is greater.

Which quantity is the greatest?

### Simplify the following:

$$\frac{48^{50}+80^{30}}{4^{20}}$$

### Possible Answers:

$$2^{160} * 3^{50} + 2^{80} * 5^{30}$$

$$17^{50}$$

$$12^{30} + 5^{10}$$

$$17^{80}$$

$$4^{16} * 3^{25} + 2^{20} * 5^{15}$$



Correct answer:

$$2^{160} * 3^{50} + 2^{80} * 5^{30}$$

# What digit appears in the units place when $2^{102}$ is multiplied out?

### Possible Answers:

4	
2	
8	
6	
0	
~	Correct answer: