

4. Q.P · Quantitative problem solving and data

Starter Quiz ·

GRE General Test

Name: _____ Score: _____

1. A jacket costs 72 dollars after a 10% discount. What was the original price in dollars?

2. The average of 4 numbers is 15. Three of them are 10, 12 and 20. What is the fourth?

3. Which numbers divide both 48 and 30? Select all that apply.

☐ 4

☐ 6

☐ 8

☐ 3

☐ 2

Tick every correct option.

4. A positive price that falls by 20% returns to its original value after a 20% increase.

☐ True ☐ False

5. “15% more than x” can be written as _____x.

6. Two of seven objects have a property. Enter the percentage to the nearest tenth of a percent; the answer box is labelled percent.

7. A positive price falls by 20%. By what percentage of the reduced price must it rise to return to its original value? Enter the percentage number.

8. Group A has 2 measurements with mean 10. Group B has 6 with mean 20. What is the mean of all 8 measurements?

9. Which listed real values satisfy $\sqrt{x+6} = x$? Select all that apply.

☐ 2

☐ 6

☐ 3

☐ -2

☐ 0

Tick every correct option.

10. Which listed integers satisfy $n^2 < 10$? Select all that apply.

☐ 3

☐ 4

☐ -2

☐ -3

☐ -4

☐ 0

Tick every correct option.

GRE General Test

1. **80**

A 10% discount leaves 90% of the original p : $0.9p = 72$, so $p = 80$. Check: 10% of 80 is 8, leaving 72.

2. **18**

Four values with mean 15 total 60. The known three total 42, so the fourth is 18. Substitution gives $(10 + 12 + 20 + 18)/4 = 15$.

3. **6; 3; 2**

2, 3 and 6 divide both 48 and 30. The offered 4 and 8 fail the second test because neither divides 30. Select every listed value that passes both conditions.

4. **False**

The two multipliers give $0.8 \times 1.2 = 0.96$ of the original. Restoring the original needs a 25% rise from the reduced price, since $1/0.8 = 1.25$.

5. **1.15**

The new amount is $100\% + 15\% = 115\%$ of x , or $1.15x$. The increase alone is $0.15x$.

6. **28.6**

The exact percentage is $200/7 = 28.5714\ldots$. Round only the final result to one decimal place: 28.6. Do not enter the proportion $2/7$.

7. **25**

The reduced amount is $0.8p$. The missing $0.2p$ is $0.2p/(0.8p) = 0.25 = 25\%$ of the reduced price.

8. **17.5**

The sums are $2 \times 10 = 20$ and $6 \times 20 = 120$. Divide the combined sum 140 by the combined count 8 to obtain 17.5.

9. **3**

Squaring gives candidates 3 and -2 , but the principal square root is nonnegative. Only 3 satisfies the original equation; -2 gives 2 on the left and -2 on the right.

10. **3; -2; -3; 0**

The integer solutions are -3 through 3. From the offered list, -3 , -2 , 0 and 3 work. Both -4 and 4 have square 16 and fail the strict inequality.