Корпусные методы языковых исследований,
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1. **Проценты**

1.1 **Процент** – это 1/100 часть числа – 0,01
100% = 1

1.2 **Процент от числа**
25% от 100 = 25
25% от 1000 = 250
25% от 10^6 = 250.000

2. **Процент и дробь**

10% = 0,1 = 1/10
20% = 0,2 = 1/5
25% = 0,25 = 1/4
50% = 0,5 = 1/2
75% = 0,75 = 3/4
80% = 0,8 = 4/5
77% = 0,77 = 77/100
9% = 0,09 = 9/100
8% = 0,08 = 2/25
12,5% = 0,125 = 125/1000 = 1/8

3. **Степень числа** a

3.1 $1^n = 1$

3.2 $a^0 = 1$

3.3 a>1: $10^5 > 10^4$

3.4 a<1:

$0,5^3 < 0,5^2$ (0,125 < 0,25)

$0,1^4 < 0,1^3$ (0,0001 < 0,001)

3.5 $125^{1/3} = 5$

$32^{1/5} = 2$

$16^{3/4} = 8$

4. **Отрицательная степень числа** a

4.1 $a^{-n} = 1/a^n$

4.2 $1^{-n} = 1$

4.3 a>1: $10^{-5} < 10^{-4}$

4.4 a<1:

$0{,}5^{-3} < 0{,}5^{-2}$ (1/125 < 1/25)

$0{,}1^{-4} < 0{,}1^{-3}$ (1/10000 < 1/1000)

4.5 $125^{-1/3} = 1/5$

$32^{-1/5} = 1/2$

5. e = 2,72
6. **Задание 1**

В селе X население составляет 1244 человека. 71% из них – ханты. 26% хантов говорят на хантыйском языке. Сколько хантов говорят на хантыйском языке?

(1) 0,71 * 0,26 = 0,1846 = 18,46%
(2) 1244 * 0,1846 = 229,64 229 человек

7. **Задание 2**
   https://www.manhattanprep.com/gre/blog/data-interpretation-is-really-about-reading-carefully-well-that-and-percents/

Ninth-Grade Students at Millbrook High School

	Boys	Girls
Enrolled in Spanish	12	13
Not Enrolled in Spanish	19	16

1. What fraction of the girls are enrolled in Spanish?
2. What fraction of the students are boys who are enrolled in Spanish?
3. What is the ratio of 9th grade girls not enrolled in Spanish to all 9th grade students at Millbrook Middle School?
4. If x% more students are not enrolled in Spanish than are enrolled in Spanish, what is *x*?
5. If 2 of the boys not enrolled in Spanish decided to enroll in Spanish, and then 8 new girls and 7 new boys enrolled in the 9th grade at Millbrook Middle School and also in Spanish, what percent of 9th grade students at Millbrook would then be taking Spanish?

8. **Задание 3**
https://www.ets.org/gre/revised_general/prepare/quantitative_reasoning/comparison/sample_questions

Lionel is younger than Maria.

Quantity A	Quantity B
Twice Lionel's age	Maria's age

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

9. **Задание 4**
https://www.ets.org/gre/revised_general/prepare/quantitative_reasoning/comparison/sample_questions

Quantity A	Quantity B
54% of 360	150

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

10. **Задание 5**
https://www.ets.org/gre/revised_general/prepare/quantitative_reasoning/multiple_choice_one/sample_questions

Which of the following numbers is farthest from the number 1 on the number line?

A. -10
B. -5
C. 0
D. 5
E. 10

11. **Задание 6**
https://www.ets.org/gre/revised_general/prepare/quantitative_reasoning/multiple_choice_one/sample_questions

A car got 33 miles per gallon using gasoline that cost $2.95 per gallon.
Approximately what was the cost, in dollars, of the gasoline used in driving the car 350 miles?

A. $10
B. $20
C. $30
D. $40
E. $50

12. **Задание 7**

https://www.ets.org/gre/revised_general/prepare/quantitative_reasoning/multiple_choice_one/sample_questions

A certain jar contains 60 jelly beans — 22 white, 18 green, 11 yellow, 5 red, and 4 purple. If a jelly bean is to be chosen at random, what is the probability that the jelly bean will be neither red nor purple?

A. 0.09
B. 0.15
C. 0.54
D. 0.85
E. 0.91

13. **Задание 8**

https://www.ets.org/gre/revised_general/prepare/quantitative_reasoning/multiple_choice_more/sample_questions

Which two of the following numbers have a product that is between –1 and 0?

Indicate both of the numbers.

A. –20
B. –10
C. 2^{-4}
D. 3^{-2}

14. **Задание 9**

https://www.ets.org/gre/revised_general/prepare/quantitative_reasoning/numeric_entry/sample_questions

Results of a Used-Car Auction

	Small Cars	Large Cars
Number of cars offered	32	23
Number of cars sold	16	20
Projected sales total for cars offered (in thousands)	$70	$150
Actual sales total (in thousands)	$41	$120

For the large cars sold at an auction that is summarized in the table above, what was the average sale price per car?

15. **Задание 10**

https://www.ets.org/gre/revised_general/prepare/quantitative_reasoning/numeric_entry/sample_questions

A merchant made a profit of $5 on the sale of a sweater that cost the merchant $15. What is the profit expressed as a percent of the merchant's cost?

Give your answer to the nearest whole percent.

16. **Задание 11**

https://www.ets.org/gre/revised_general/prepare/quantitative_reasoning/data_interpretation/sample_questions

Annual Percent Change in Dollar Amount of Sales at Five Retail Stores from 2006 to 2008

Store	Percent Change from 2006 to 2007	Percent Change from 2007 to 2008
P	10	-10
Q	-20	9
R	5	12
S	-7	-15
T	17	-8

If the dollar amount of sales at Store *P* was $800,000 for 2006, what was the dollar amount of sales at that store for 2008?

A. $727,200

B. $792,000

C. $800,000

D. $880,000

E. $968,000

17. **Задание 12**

https://www.ets.org/gre/revised_general/prepare/quantitative_reasoning/data_interpretation/sample_questions

Annual Percent Change in Dollar Amount of Sales at Five Retail Stores from 2006 to 2008

Store	Percent Change from 2006 to 2007	Percent Change from 2007 to 2008
P	10	-10
Q	-20	9
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S	-7	-15
T	17	-8

Based on the information given, which of the following statements must be true?

Indicate all such statements.

A. For 2008 the dollar amount of sales at Store *R* was greater than that at each of the other four stores.

B. The dollar amount of sales at Store *S* for 2008 was 22 percent less than that for 2006.

C. The dollar amount of sales at Store *R* for 2008 was more than 17 percent greater than that for 2006.