

1. If S is a number between 0 and 1, which of the following is **NOT** more than S ?

- A. \sqrt{S} B. $1/s$ C. $2s$ D. s^2

Solution and Explanation: <https://youtu.be/4AsQWfNYd3Y>

2. Look at the pattern carefully: 10 20 25 35 40 50 55, then which of the following pair of numbers come next?

- A. 60 65 B. 65 70 C. 60 75 D. 60 70

Solution and Explanation: <https://youtu.be/fd9Y391jE38>

3. What is the simplified form of $(1 \div 10^{-1}) \times (-1)^{-10}$?

- A. 10 B. 1 C. 0.1 D. 100

Solution and Explanation: https://youtu.be/-4wtru_Ybk4

4. If $b \neq 0$ and $\frac{a}{5} = \frac{b}{7}$, what is the value of $\frac{a}{b}$?

- A. $7/5$ B. $1/7$ C. $1/5$ D. $5/7$

Solution and Explanation: https://youtu.be/-4wtru_Ybk4

5. Look at the pattern carefully: 32 31 32 29 32 27 32, then which of the following pair of numbers comes next?

- A. 29 32 B. 29 30 C. 25 32 D. 25 30

Solution and Explanation: <https://youtu.be/Uc3vLVEAz-A>

6. $1 \div 0.1 \div 0.01 \div 0.001$ is equal to

- A. 1,000,000 B. 0.001 C. 100 D. 0.00001

Solution and Explanation: <https://youtu.be/dq61DpLoLpQ>

7. What number increased by 3 is equal to 3 less than twice the number?

- A. 3 B. 9 C. 12 D. 6

Solution and Explanation: <https://youtu.be/8UGRrBjYdgY>

8. Three professors contested an election for a university president and received 1136, 7636 and 11628 votes, respectively. What percentage of the total votes did the winning professor get?

- A. 65% B. 57% C. 59% D. 61%

Solution and Explanation: <https://youtu.be/dUS-dxcfHK0>

9. If one-fourth of one-third of a number is 15, then what is three-tenth of that number?

- A. 39 B. 45 C. 54 D. 34

Solution and Explanation: <https://youtu.be/wcv6u2SPGF0>

10. An athlete completes a journey in 10 hours. He travels first half of the journey at the rate of 21 km/hr and second half at the rate of 24 km/hr. What is the total journey in km?

- A. 216 km B. 225 km C. 218 km D. 230 km

Solution and Explanation: <https://youtu.be/fd9Y391jE38>

11. If $y \neq 0$ and $xy = \frac{y}{6}$, what is the value of x ?

- A. $\frac{1}{2}$ B. $\frac{1}{8}$ C. $\frac{1}{4}$ D. $\frac{1}{6}$

Solution and Explanation: <https://youtu.be/6zjVbsNnJn4>

12. What number should come next in the series: 7, 10, 8, 11, 9, 12, ...?

- A. 13 B. 10 C. 12 D. 7

Solution and Explanation: <https://youtu.be/x8LWc9r-VnM>

13. The difference between a positive proper fraction and its reciprocal is $\frac{9}{20}$. What is the value of the fraction?

- A. $\frac{5}{4}$ B. $\frac{3}{5}$ C. $\frac{4}{3}$ D. $\frac{4}{2}$

Solution and Explanation: <https://youtu.be/UvBvaJDPXW0>

14. What is the product of $(\sqrt{7} - 2)(\sqrt{7} + 2)$?

- A. 5 B. 4 C. 2 D. 3

Solution and Explanation: <https://youtu.be/lOaPuYQUrCY>

15. The sum of ages of 5 children born at the intervals of 3 years each is 50 years. What is the age of the youngest child?

- A. 8 years B. 4 years C. 6 years D. 10 years

Solution and Explanation: <https://youtu.be/WUiXg28GzFY>

16. What number should come next in the series: 544, 509, 474, 439, ... ?

- A. 445 B. 420 C. 404 D. 414

Solution and Explanation: <https://youtu.be/EUaw8DhoVI4>

17. A library has an average of 510 visitors on Sundays and 240 on other days. What is the average number of visitor per day in a month of 30 days beginning with a Sunday?

- A. 285 B. 283 C. 275 D. 290

Solution and Explanation: https://youtu.be/myM_LjimYl8

18. What number should come next in the series: 58, 52, 46, 40, 34, ... ?

- A. 32 B. 30 C. 28 D. 34

Solution and Explanation: <https://youtu.be/ito3KhB1knQ>

19. If $x > y$, compare the two quantities

Quantity <i>A</i>	Quantity <i>B</i>
30% of x	50% of y

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

Solution and Explanation: https://youtu.be/Gc9YE_A-EC4

20. Compare the two quantities

Quantity <i>A</i>	Quantity <i>B</i>
$(-21)^{12}$	$(-31)^{13}$

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

Solution and Explanation: <https://youtu.be/LNwMAXsYabo>

Questions 21-25 are based on the hypothetical data given in the table below. Answer each question based on the data.

Table: Number of candidates that took and qualified in a license examination from different regions over the years.

Regions	Year									
	1997-2000		1998-2001		1999-2002		2000-2003		2001-2004	
	Took	Qual.	Took	Qual.	Took	Qual.	Took	Qual.	Took	Qual.
AA	5200	720	8500	980	7400	850	6800	775	9500	1125
AM	7500	840	9200	1050	8450	920	9200	980	8800	1020
OR	6400	780	8800	1020	7800	890	8750	1010	9750	1250
TI	8100	950	9500	1240	8700	980	9700	1200	8950	995
SP	7800	870	7600	940	9800	1350	7600	945	7990	885

21. What is the percentage of total number of qualified candidates to the total number of candidates took the exam among all the five regions in 2002?

- A. 11.84% B. 11.52% C. 11.48% D. 11.89%

Solution and Explanation: <https://youtu.be/fepROIrm944>

22. What is the percentage of candidates qualified from Region AM for all the years together, over the candidates took the exam from Region AM during all the years together?

- A. 11.75% B. 11.46% C. 11.57% D. 11.15%

Solution and Explanation: <https://youtu.be/fepROIrm944>

23. In which of the given years the number of candidates took the exam from region OR has maximum percentage of qualified candidates?

- A. 2001 B. 2003 C. 2004 D. 2000

Solution and Explanation: <https://youtu.be/fepROIrm944>

24. What is the average number of candidates who took the exam from Region TI during the given years?

- A. 8800 B. 8900 C. 8860 D. 8990

Solution and Explanation: <https://youtu.be/fepROIrm944>

25. What percent is the total number of qualified candidates in 1997-2000 to the total number of those qualified in 2001-2004?

A. 84%

B. 76%

C. 78%

D. 80%

Solution and Explanation: <https://youtu.be/fepROIm944>