

- 1) If x varies inversely as $y^2 - 1$ and is equal to 24 when $y = 10$, find x when $y = 5$.
- a) 99
b) 101
c) 91
d) 93
- 2) If x varies as y , and $y = 7$ when $x = 18$, find x when $y = 21$
- a) 36
b) 54
c) 72
d) 18
- 3) If x varies as y directly, and as z inversely, and $x = 14$ when $y = 10$; find z when $x = 49$, $y = 45$.
- a) $14/10$
b) 10
c) $10/14$
d) Cannot be determined
- 4) If two numbers are in the ratio of 5:2 and if 3 be added to each, the ratio becomes 10:7. Find the First number.
- a) 3
b) 5
c) 7
d) 9
- 5) What number must be taken from each term of the fraction $21/33$ that it may become 1:3?
- a) 15
b) 20
c) 9
d) 11
- 6) At constant temperature, pressure of a definite mass of gas is inversely proportional to the volume. If the pressure is reduced by 20%, find the respective change in volume
- a) -16.66%
b) +25%
c) -25%
d) +16.66%
- 7) If the ratio of the ages of Anil and Sunil is 4 : 3 at present, and Ten years from now, the ratio will get changed to 6 : 5, then find Anil's present age.
- a) 30yrs
b) 20yrs
c) 15yrs
d) 25yrs
- 8) Four numbers in the ratio 1:5:4:8 add up to give a sum of 90. Find the value of the biggest number.
- a) 5
b) 25
c) 20
d) 40
- 9) The difference between two positive numbers is 10 and the ratio between them is 3:2. Find the product of the two numbers.
- a) 400
b) 300
c) 600
d) 500
- 10) After an increment of 4 in both the numerator and denominator, a fraction changes to $7/6$. Find the original fraction.
- a) $3/2$
b) $5/6$
c) $7/4$
d) $1/2$
- Answers:
- 1 – A
2 – B
3 – D

4 – A
5 – A
6 – B
7 – B
8 – D
9 – C
10 – A

