Factorization: Worksheet -8

1. $(100-1)\times(100-2)\times(100-3).....\times(100-110)$ = _ _ _ _ _ _ _ _ _ _ [ ]

a] 100^2 b] 100^2-110^2 c] 1 d] 0

2. $x^{m+2}.x^{m-2}+x^{m+4}.x^{m-4}+x^{m-8}.x^{m+8}$ =_ _ _ _ _ _ _ _ _ _ _ _ [ ]

a] x^{2m-6} b] x^{3m-6} c] $3x^{2m}$ d] $3x^{2m-8}$

3. If $a^2+\frac{1}{a^2}=27$ then the value of $a-\frac{1}{a}$ [ ]

a] ± 5 b] ± 6 c] ± 7 d] ± 8

4. If $x + y = 16$, $xy = 63$, then (x, y) = [ ]

a] (4, 12) b] (9, 7) c] (10, 6) d] (11, 5)

5. If $x = 12$, $y = 4$; then $(x+y)^{x/y}$ = [ ]

a] 4090 b] 4099 c] 5000 d] 4096

6. If $x+\frac{1}{x}=1$ then $x^2+\frac{1}{x^2}$ = _____ [ ]

a] 1 b] 0 c] – 1 d] $\frac{1}{2}$

7. Factorize $a^3b^4 - 3a^3b^2 + 4a^2b^3$ is: _____ [ ]

a] $a^2b^2(ab^2 - 3a + 4b^2)$ b] $a^2b^2(ab^2 - 3a + 4b)$

c] $a^2b^2(ab^2 + 3a + 4b)$ d] None

8. Factorize: $a^3 + 2a^2 + 2ab^2$ = _____ [ ]

a] $a(a^2 + b^2)$ b] $a(a + b)^2$ c] $a(a^2 + b^2)^2$ d] None

9. (a - b) (x - y) + (a - b) (y - z) = _____ [ ]

a] (a + b) (x - z)
b] (a - b) (x + z)
c] (a - b) (x - z)
d] None

10. m^2 - am – bm + ab = _____ [ ]

a] (m – a) (m – b)
b] (m + a) (m – b)
c] (m – a) (m + b)
d] (m + a) (m + b)