

EduSahara™ Learning Center Assignment**Grade : Class VII, ICSE****Chapter : Exponents****Name : Solving Equations with Indices****Licensed To : Teachers and Students for non-commercial use**

1. If $4^k = 16$, find k

(i) 0 (ii) 1 (iii) 4 (iv) 2 (v) 3

2. If $4^n = 256$, find 5^n

(i) 626 (ii) 627 (iii) 625 (iv) 624 (v) 622

3. If $4^{(21j+4)} = 256^{(5j+3)}$, find j

(i) 10 (ii) 9 (iii) 8 (iv) 5 (v) 7

4. If $81^{(r+1)} = 27^{2r}$, find r

(i) 1 (ii) 3 (iii) 2 (iv) 5 (v) 0

5. If $25^{(t+5)} = 3125^{24} = 5^u$, find u

(i) 118 (ii) 122 (iii) 121 (iv) 119 (v) 120

6. If $5^x = 125$, find $5^{(2x+3)}$

(i) 1953125 (ii) 1953124 (iii) 1953126 (iv) 1953123 (v) 1953127

7. If $\left(3^{135}\right)^{20} = \left(3^{45}\right)^h$, find h

(i) 60 (ii) 57 (iii) 63 (iv) 61 (v) 59

8. If $64 \times 8^v = 8^4$, find v

(i) 3 (ii) 1 (iii) (-1) (iv) 5 (v) 2

9. If $5^{(3f+1)} \div 25 = 5^{11}$, find f

(i) 2 (ii) 7 (iii) 3 (iv) 4 (v) 5

10. $\left(e^{(-3)} + f^{(-3)} \right)^0 =$

- (i) 1 (ii) 3 (iii) 0 (iv) $e^{(-3)} + f^{(-3)}$ (v) (-1)
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Assignment Key

- 1) (iv)
- 2) (iii)
- 3) (iii)
- 4) (iii)
- 5) (v)
- 6) (i)
- 7) (i)
- 8) (v)
- 9) (iv)
- 10) (i)