

January Exam Review
Chapter 2: Powers (Answer Section)

MULTIPLE CHOICE

1. B
2. B
3. A
4. D
5. C
6. A
7. B
8. B
9. A
10. C
11. A
12. B
13. D
14. A
15. A
16. A
17. D
18. C
19. C
20. D
21. C
22. D
23. A

SHORT ANSWER

24) The answers for i and ii are positive.

25) -5

26) $(-2)^5 = -32$

$$27) \frac{(2^4)^3 \times (2^2)^4}{(2^4 \times 2^4)^2} = \frac{2^{20}}{2^{16}} = 2^4 = 16$$

28)

$$(4^6 \div 4^3)^2 - (2^8 \div 2^6)^2 = (4^3)^2 - (2^2)^2 = 4^6 - 2^4 = 4080$$

$$29) [(-2)^4 \times (-2)^3] - [(-3)^4 \div (-3)^3] = (-2)^7 - (-3)^1 = -125$$

PROBLEM

$$\begin{aligned} 30) & \frac{(15)^2 - (6)^2}{(9)^2 - 2(3)^2} \\ &= \frac{225 - 36}{81 - 18} \\ &= \frac{189}{63} \\ &= 3 \end{aligned}$$