

POWERS

Evaluate.

1. 2^3 2. 4^3 3. 3^5 4. $(-2)^3$ 5. $\left(\frac{1}{2}\right)^4$ 6. $\left(\frac{3}{4}\right)^3$

7. $\left(-\frac{1}{3}\right)^2$ 8. $3(2)^3$ 9. $2^2 + 3^2$ 10. $(2+3)^2$ 11. $4^2 - 5^3$

12. $4 \times 5^2 + (3+1)^2$ 13. $6^3 - 2 \times 5^2 - (1+2)^2$

ORDER OF OPERATIONS

Simplify.

1. a) $[(-10) + (-2)] \div 6 - 4$ b) $[(-20) + 4] \times [(-10) - (-6)]$

c) $3(-2 + 6) - 5(4 - 1)$ d) $(-3)(-1)(5) - (-2)(-4)(-1)$

2. a) $\frac{(-15)}{3} - \frac{(-10)}{5}$ b) $\frac{(-7) + 3(-1 + 4)}{-2}$

3. a) $(12 + 8) \div (2 - 6)$ b) $(-3 + 4)(8 - 10) - (7 - 9)(4 - 1)$

c) $\frac{(-5 + 2)(-4 - 6)}{3 - 9}$ d) $\frac{5(-3 - 4) - (-6)(13 - 6)}{(-1)(11 - 4)}$

4. $4[-6(-2 - 7) - 5(7 + 2)]$

Answers:

Powers 1. 8, 2. 64, 3. 243, 4. -8, 5. $\frac{1}{16}$, 6. $\frac{27}{64}$, 7. $\frac{1}{9}$, 8. 24, 9. 13, 10. 25,

11. -109, 12. 116, 13. 157

Order of Operations 1.a) -6, b) 64, c) -3, d) 23, 2.a) -3, b) -1,
3.a) -5, b) 4, c) -5, d) -1, 4. 36