

GRADE 9 – Order of Operations Practice

1. Evaluate the following:

a) $(10 - 6) \times (3 + 12 \div 2)$

b) $(3^2 - 1) + 5 \times 12$

c) $12 \times 6 \div 3 \times 2 \div 12$

d) $(1^3 + 2^2 + 3) \div 2^2$

e) $6 \times 5 - (12 - 4) \div 2$

f) $2 \times 4^2 - 5 \times 2 + 15$

g) $3(6 - 1) \div 5 + 4 - 1$

h) $6^2 \div (9 + 3^2) - 1$

i) $4[10 - 4 \times 1] \div 3$

j) $12 + 6 \div 6 - 3 + 2 \times 4 + \left(\frac{1}{2} \text{ of } 24\right)$

k) $\frac{5 \times 11 + 40 \div 8}{12 + 15 \div 5}$

l) $\frac{17 \times 4 - 2^3}{3^2 + 1}$

m) $[22 - 3 \times 5 + 9 - 6 \times 2] \div 2 + 13$

n) $5(7 + 3)\left(\frac{1}{2} \text{ of } 8\right) - 7 \times 6$

o) $320 \div [(18 - 2) \times 2] - 20 \div 4$

p) $(3^2 + 3^3) \div (1 + 2^3)$

q) $\frac{17 + 13}{15 \div 3} + 5^2 + 2(5 - 1)$

r) $\frac{17 + 3}{20 \div 2} + \frac{18 \div 6}{2 \times 3 - 5}$

s) $\frac{54 \div 9}{3 \times 2} \times \frac{27 + 3}{5 \times 3} + \frac{13 \times 3}{6 \div 2}$

t) $54 - \frac{7(14 \div 2 + 3)}{5 \times 4 - 10} + 3^2$

u) $\frac{7 + 2(8 \times 3 - 1 + 1^2 + 1^{12})}{7 - 2(3^3 - 3^2 - 5 \times 3)}$

2. Which is larger?

a) $1^2 + 2^2 + 3^2$ or $(1 + 2 + 3)^2$

b) $3^2 - 2^2$ or $(3 - 2)^2$

c) 10^2 or 2^{10}

3. Place brackets in each of the following in order to make the statement correct:

a) $20 - 8 + 2^2 = 8$

b) $49 - 32 \div 8 - 3^2 = 36$

c) $3 \times 3 - 3^2 + 5 = 41$

d) $3 \times 2^2 - 4 = 32$

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