Name:_____ **Math is Gold** Date:_____

Topic: Commutative and associative properties. **(id:basics_comm_assoc_M.1)**

Title: Identify the property as commutative(C) or associative(A) or distributive(D)

1) $(2 + y) + z = 2 + (y + z)$ _____

2) $(3 + 2) + 11 = 11 + (3 + 2)$ _____

3) $(5 + 11) + 1 = 5 + (11 + 1)$ _____

4) $5 \times (2 + 3) = (5 \times 2) + (5 \times 3)$ _____

5) $(8.x).y = 8.(x.y)$ _____

6) $a.5 = 5.a$ _____

7) $5.(a.b) = (a.b).5$ _____

8) $(u + v) + 7 = u + (v + 7)$ _____

9) $5 + (7 + 2) = (7 + 2) + 5$ _____

10) $(a + 2b) + 5 = 5 + (a + 2b)$ _____

11) $(10 \times 5) + (2 \times 5) = (10 + 2) \times 5$ _____

12) $(7 \times 3) = 3 \times 7$ _____

13) $x + 15 = 15 + x$ _____

14) $4.(p.\, q) = (4.p).\, q$ _____

15) $(7.m).\, n = n.\, (7.m)$ _____

16) $(7 - 2) \times 5 = (7 \times 5) - (2 \times 5)$ _____

17) $(18 + c) + d = (c + 18) + d$ _____

18) $y.\, z = z.\, y$ _____

19) $(3 \times 7) + (3 \times 5) = 3 \times (7 + 5)$ _____

20) $5.(c.\, d) = (5.c).\, d$ _____