Finding Associative Property of Multiplication

Name:

Determine which choice is an equivalent equation.

1) Which expression is equal to
(1 × 9) × 10
A. (1 + 9) + 10
B. (1 × 9) + 10
C. 1 + (9 × 10)
D. 1 × (9 × 10)

2) Which expression is equal to
0 × (7 × 4)
A. 0 + (7 × 4)
B. (0 + 7) × 4
C. (0 + 7) + 4
D. (0 × 7) × 4

3) Which expression is equal to
9 × (0 × 7)
A. 9 × (0 + 7)
B. (9 × 0) × 7
C. (9 + 0) × 7
D. (9 + 0) + 7

4) Which expression is equal to
9 × (1 × 10)
A. (9 + 1) × 10
B. 9 × (1 + 10)
C. (9 × 1) × 10
D. (9 × 1) + 10

5) Which expression is equal to
(1 × 9) × 10
A. (1 × 9) + 10
B. 1 × (9 × 10)
C. 1 + (9 × 10)
D. 1 + (9 + 10)

6) Which expression is equal to
(4 × 5) × 2
A. 4 + (5 × 2)
B. (4 + 5) + 2
C. 4 × (5 × 2)
D. 4 × (5 + 2)

7) Which expression is equal to
3 × (5 × 9)
A. (3 + 5) × 9
B. 3 + (5 + 9)
C. (3 × 5) + 9
D. (3 × 5) × 9

8) Which expression is equal to
3 × (6 × 9)
A. 3 + (6 + 9)
B. (3 × 6) × 9
C. (3 + 6) × 9
D. (3 + 6) + 9

9) Which expression is equal to
(8 × 3) × 1
A. (8 + 3) + 1
B. (8 + 3) × 1
C. 8 + (3 + 1)
D. 8 × (3 × 1)

10) Which expression is equal to
(6 × 5) × 3
A. (6 + 5) + 3
B. 6 × (5 + 3)
C. 6 × (5 × 3)
D. (6 + 5) × 3

11) Which expression is equal to
7 × (4 × 3)
A. 7 × (4 + 3)
B. 7 + (4 + 3)
C. (7 × 4) × 3
D. 7 + (4 × 3)

12) Which expression is equal to
4 × (1 × 2)
A. 4 + (1 × 2)
B. 4 + (1 + 2)
C. (4 × 1) × 2
D. (4 × 1) + 2

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____

1-10	92	83	75	67	58	50	42	33	25	17
11-12	8	0								

Finding Associative Property of Multiplication Name: **Answer Key**

Determine which choice is an equivalent equation.

1) Which expression is equal to $(1 \times 9) \times 10$
A. $(1 + 9) + 10$
B. $(1 \times 9) + 10$
C. $1 + (9 \times 10)$
D. $1 \times (9 \times 10)$

2) Which expression is equal to $0 \times (7 \times 4)$
A. $0 + (7 \times 4)$
B. $(0 + 7) \times 4$
C. $(0 + 7) + 4$
D. $(0 \times 7) \times 4$

3) Which expression is equal to $9 \times (0 \times 7)$
A. $9 \times (0 + 7)$
B. $(9 \times 0) \times 7$
C. $(9 + 0) \times 7$
D. $(9 + 0) + 7$

4) Which expression is equal to $9 \times (1 \times 10)$
A. $(9 + 1) \times 10$
B. $9 \times (1 + 10)$
C. $(9 \times 1) \times 10$
D. $(9 \times 1) + 10$

5) Which expression is equal to $(1 \times 9) \times 10$
A. $(1 \times 9) + 10$
B. $1 \times (9 \times 10)$
C. $1 + (9 \times 10)$
D. $1 + (9 + 10)$

6) Which expression is equal to $(4 \times 5) \times 2$
A. $4 + (5 \times 2)$
B. $(4 + 5) + 2$
C. $4 \times (5 \times 2)$
D. $4 \times (5 + 2)$

7) Which expression is equal to $3 \times (5 \times 9)$
A. $(3 + 5) \times 9$
B. $3 + (5 + 9)$
C. $(3 \times 5) + 9$
D. $(3 \times 5) \times 9$

8) Which expression is equal to $3 \times (6 \times 9)$
A. $3 + (6 + 9)$
B. $(3 \times 6) \times 9$
C. $(3 + 6) \times 9$
D. $(3 + 6) + 9$

9) Which expression is equal to $(8 \times 3) \times 1$
A. $(8 + 3) + 1$
B. $(8 + 3) \times 1$
C. $8 + (3 + 1)$
D. $8 \times (3 \times 1)$

10) Which expression is equal to $(6 \times 5) \times 3$
A. $(6 + 5) + 3$
B. $6 \times (5 + 3)$
C. $6 \times (5 \times 3)$
D. $(6 + 5) \times 3$

11) Which expression is equal to $7 \times (4 \times 3)$
A. $7 \times (4 + 3)$
B. $7 + (4 + 3)$
C. $(7 \times 4) \times 3$
D. $7 + (4 \times 3)$

12) Which expression is equal to $4 \times (1 \times 2)$
A. $4 + (1 \times 2)$
B. $4 + (1 + 2)$
C. $(4 \times 1) \times 2$
D. $(4 \times 1) + 2$

Answers

1. D
2. D
3. B
4. C
5. B
6. C
7. D
8. B
9. D
10. C
11. C
12. C

1-10	92	83	75	67	58	50	42	33	25	17
11-12	8	0								