

Year 4 Homework Answer

Module 9: Algebra Laws

1.

44	58	34
47	16	54
27	95	82

2.

15	25	31
9	53	86
47	29	78

3.

15	33	85	31
12	30	3	26

4.

Commutative law of addition = $A + B = B + A$

Commutative law of multiplication = $A \times B = B \times A$

Associative law of addition = $(A + B) + C = A + (B + C)$

Associative law of multiplication = $(A \times B) \times C = A \times (B \times C)$

Distributive law = $A \times (B + C) = A \times B + A \times C$

5.

$$120 - 132 \div 11 = 108$$

6.

$$4200 \div 20 \div 6 = 35 \text{ boxes; Not enough}$$

$$\text{Or } 33 \times 20 \times 6 = 3960 \text{ bottles, Not enough}$$

7.

$$34 \times 4 + 2 \times 3 = 142 \text{ people}$$

8.

$$30 + 21 + 40 - (12 + 18 + 17) = 44 \text{ sushis left}$$

9.

18	27	28
110	144	40

10.

	12×99 $= 12 \times (100 - 1)$ $= 12 \times 100 - 12 \times 1$ $= 1200 - 12$ $= 1188$	49×101 $= 49 \times (100 + 1)$ $= 49 \times 100 + 49 \times 1$ $= 4900 + 49$ $= 4949$
53×101 $= 53 \times (100 + 1)$ $= 53 \times 100 + 53 \times 1$ $= 5300 + 53$ $= 5353$	9×99 $= 9 \times (100 - 1)$ $= 9 \times 100 - 9 \times 1$ $= 900 - 9$ $= 891$	52×99 $= 52 \times (100 - 1)$ $= 52 \times 100 - 52 \times 1$ $= 5200 - 52$ $= 5148$

11.

First question: the mistake is when adding brackets for $139 - 21$, you need to change $-$ sign into $+$ sign. The final answer is 23

Second question: the mistake is when adding brackets for $273 + 46$, you need to change $+$ sign into $-$ sign. The final answer is 131

***Note: changing sign after adding brackets ONLY occurs when $-$ sign is in front of the bracket.

12.

$$(12 + 28 + 10) \times 90 = 4500 \text{ cents} = 45 \text{ dollars}$$

13.

$$(3 \times 5 + 4 \times 2) \times 3 = 69 \text{ hours}$$

14.

$$(27 \times 6 + 14 \times 4) \times 6 \div 2 = 654 \text{ dollars}$$

15.

Plain carpet: 56 dollars

Patterned carpet: 66 dollars

Fluffy carpet: 132 dollars

$$56 + 66 + 132 \times 2 = 386 \text{ dollars}$$