



Chapter 11: Calculation Rules (Multiplication)

Year 5

Worksheet B: Use the Laws of Arithmetic to Simplify Calculations

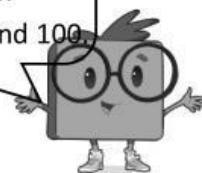
Use the commutative law of multiplication to help you multiply.

(a) $4 \times 12 \times 25 = 12 \times 4 \times 25$

= 12 × _____

= _____

The commutative law of multiplication says that you can swap the order of 12 and 4. It is easier to multiply 12 and 100.



(b) $2 \times 57 \times 50 = 57 \times \text{_____} \times 50$

= 57 × _____

= _____

(c) $25 \times 23 \times 4 = 25 \times \text{_____} \times \text{_____}$

= _____ × _____

= _____

(d) $5 \times 175 \times 2$

(e) $4 \times 87 \times 25$

5. Use the associative law of multiplication to help you multiply.

(a) $48 \times 25 = 12 \times 4 \times 25$

= 12 × _____

= _____

The associative law of multiplication says that you can multiply 4 and 25 first. It is easier to multiply 12 and 100.



(b) $45 \times 20 = 9 \times \text{_____} \times 20$

= 9 × _____

= _____

(c) $28 \times 25 = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} \times 25$
 $= \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$

(d) $28 \times 4 \times 25$

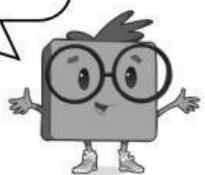
(e) 44×25

6. Use the distributive law of multiplication to help you multiply

(a) $75 \times 17 = 75 \times 10 + 75 \times 7$
 $= 750 + 525$
 $= \underline{\hspace{2cm}}$

$17 = 10 + 7$

It is easier to multiply 75 and 10, and 75 and 7. Then, add them together.



(b) $59 \times 15 = 59 \times 10 + 59 \times 5$
 $= \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$

(c) $71 \times 16 = 71 \times \underline{\hspace{2cm}} + 71 \times \underline{\hspace{2cm}}$

$= \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$

(d) $150 \times 15 = 150 \times \underline{\hspace{2cm}} + 150 \times \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$