

# Προσεταιριστική Ιδιότητα

Για κάθε τριάδα αριθμών  
 $a, \beta, \gamma$  έχουμε τα εξής:

Πρόσθεση:  $(a + \beta) + \gamma = a + (\beta + \gamma)$

Πολλαπλασιασμός:  $(a \cdot \beta) \cdot \gamma = a \cdot (\beta \cdot \gamma)$

Παράδειγμα:  $(1 + 2) + 3 = 3 + 3 = 6$   
 $1 + (2 + 3) = 1 + 5 = 6$

Άρα  $(1 + 2) + 3 = 1 + (2 + 3)$

# Παραδείγματα

$$1) (3+4)+2 = 7+2 = 9$$

$$3+(4+2) = 3+6 = 9$$

$$\text{'Αρα } (3+4)+2 = 3+(4+2)$$

$$2) (12+7)+3 = 19+3 = 22$$

$$12+(7+3) = 12+10 = 22$$

$$\text{'Αρα } (12+7)+3 = 12+(7+3)$$

$$3) (3 \cdot 2) \cdot 5 = 6 \cdot 5 = 30$$

$$3 \cdot (2 \cdot 5) = 3 \cdot 10 = 30$$

!Apa  $(3 \cdot 2) \cdot 5 = 3 \cdot (2 \cdot 5)$

$$4) (7 \cdot 8) \cdot 2 = 56 \cdot 2 = 112$$

$$7 \cdot (8 \cdot 2) = 7 \cdot 16 = 112$$

!Apa  $(7 \cdot 8) \cdot 2 = 7 \cdot (8 \cdot 2)$

$$5) (3 \cdot (-2)) \cdot 4 = (-6) \cdot 4 = -24$$

$$3 \cdot ((-2) \cdot 4) = 3 \cdot (-8) = -24$$

'Apa  $(3 \cdot (-2)) \cdot 4 = 3 \cdot ((-2) \cdot 4)$

$$6) (5 \cdot 6) \cdot (-2) = 30 \cdot (-2) = -60$$

$$5 \cdot (6 \cdot (-2)) = 5 \cdot (-12) = -60$$

'Apa  $(5 \cdot 6) \cdot (-2) = 5 \cdot (6 \cdot (-2))$

$$7) ((-2) \cdot 8) \cdot 4 = (-16) \cdot 4 = -64$$

$$(-2) \cdot (8 \cdot 4) = (-2) \cdot 32 = -64$$

'Apo  $((-2) \cdot 8) \cdot 4 = (-2) \cdot (8 \cdot 4)$

$$8) ((-3) \cdot (-8)) \cdot 2 = 24 \cdot 2 = 48$$

$$(-3) \cdot ((-8) \cdot 2) = (-3) \cdot (-16) = 48$$

'Apo,  $((-3) \cdot (-8)) \cdot 2 = (-3) \cdot ((-8) \cdot 2)$

$$9) (-3) \cdot 2 \cdot (-4) = (-6) \cdot (-4) = 24$$

$$(-3) \cdot (2 \cdot (-4)) = (-3) \cdot (-8) = 24$$

$$((-3) \cdot 2) \cdot (-4) = (-3) \cdot (2 \cdot (-4))$$

$$10) (3 \cdot (-2)) \cdot (-5) = (-6) \cdot (-5) = 30$$

$$3 \cdot ((-2) \cdot (-5)) = 3 \cdot 10 = 30$$

$$\text{'Apa, } (3 \cdot (-2)) \cdot (-5) = 3 \cdot ((-2) \cdot (-5))$$

$$11) ((-2) \cdot (-3)) \cdot (-4) \\ = 6 \cdot (-4) = -24$$

$$(-2) \cdot ((-3) \cdot (-4)) \\ = (-2) \cdot 12 = -24$$

$$\text{Apa, } ((-2) \cdot (-3)) \cdot (-4) \\ \parallel \\ (-2) \cdot ((-3) \cdot (-4))$$