

حلول تمرين درس الأعداد النسبية -4-

(4) جمع أعداد نسبية:

4.1 تبسيط كتابة:

حل التمرين 1:

$(+17) + (-4) = 17 - 4$	$(+6) + (-5) = 6 - 5$	$(-7) + (+3) = (-7) + 3 = 3 - 7$
$(+2) + (-1) = 2 - 1$	$(+4) + (-3) = 4 - 3$	$(-7) + (+10) = (-7) + 10 = 10 - 7$
$(+5) + (+2) = 5 + 2$	$(-6) + (+7) = (-6) + 7 = 7 - 6$	

حل التمرين 2:

معناه	نكتب	ثم	إذا:
خسرنا 7 دج	$(-19) + (+12) = -7$	ربحنا 12 دج	خسرنا 19 دج
خسرنا 12 دج	$(-4) + (-8) = -12$	خسرنا 8 دج	خسرنا 4 دج
ربحنا 9 دج	$(+15) + (-6) = 9$	خسرنا 6 دج	ربحنا 15 دج
ربحنا 30 دج	$(+17) + (+13) = 30$	ربحنا 13 دج	ربحنا 17 دج
ربحنا 1 دج	$(-25) + (+26) = 1$	ربحنا 26 دج	خسرنا 25 دج
خسرنا 8 دج	$(+11) + (-19) = -8$	خسرنا 19 دج	ربحنا 11 دج

حل التمرين 3:

$(+12) + (-4) = 12 - 4$	$(-20) + (+18) = (-20) + 18 = 18 - 20$
$(-19) + (+11) = (-19) + 11 = 11 - 19$	$(+10) + (-13) = 10 - 13$
$(-3) + (+16) = (-3) + 16 = 16 - 3$	$(+13) + (+7) = 13 + 7$
$(+24) + (-20) = 24 - 20$	$(-9) + (-21) = -9 - 21$

حل التمرين 4:

$(+18) + (-6,7) = 18 - 6,7$	$(-51,6) + (-19,3) = -51,6 - 19,3$
$(-14,8) + (+7,4) = 7,4 - 14,8$	$(+36,25) + (-48,75) = 36,25 - 48,75$
$(-21) + (-78) = -21 - 78$	$(+16,75) + (-6,75) = 16,75 - 6,75$

4.2 جمع عددين نسبيين:

حل التمرين 1:

$(-14) + (-7) = -14 - 7 = -21$	$(-17) + (-17) = -17 - 17 = -34$
$(-15) + (+6) = 6 - 15 = -9$	$(-34) + (+13) = 13 - 34 = -9$
$(+7) + (-25) = 7 - 25 = -18$	$(+12) + (-35) = 12 - 35 = -23$
$(-12,5) + (-5,5) = -12,5 - 5,5 = -18$	$(-19,2) + (-8,9) = -19,2 - 8,9 = -28,1$

حل التمرين 2:

$(+10) + (-11) = -(11 - 10) = -1$	$(+9) + (-5) = +(9 - 5) = +4 = 4$
$(-2) + (-7) = -(7 + 2) = -9$	$(-3) + (-7) = -(3 + 7) = -10$
$(+3,5) + (+8) = +(3,5 + 8) = +11,5 = 11,5$	$(-4) + (+9) = +(9 - 4) = +5 = 5$
$(-2) + (-7) = -(2 + 7) = -9$	$(+8) + (-5) = +(8 - 5) = +3 = 3$
$(+12) + (-2) = +(12 - 2) = +10 = 10$	$(-5) + (+9) = +(9 - 5) = +4 = 4$
$(+4) + (-8) = -(8 - 4) = -4$	$(+35,3) + (-4,5) = +(35,3 - 4,5) = 31$

حل التمرين 3:

$(+4,5) + (+6) = +(4,5 + 6) = 10,5$	$(-5,89) + (-4,11) = -(5,89 + 4,11) = -10$
$(+3,5) + (-1,8) = +(3,5 - 1,8) = 1,7$	$(-2,8) + (+1,1) = -(2,8 - 1,1) = -1,7$
$(-4,1) + (+1,5) = -(4,1 - 1,5) = -2,6$	$(-3,2) + (+12,5) = +(12,5 - 3,2) = 9,3$
$(+12,3) + (-5,6) = +(12,3 - 5,6) = 6,7$	
$(+8) + (-2,5) = +(8 - 2,5) = 5,5$	$(-13) + (+5,5) = -(13 - 5,5) = -7,5$

حل التمرين 4:

$(-8) + (+9) = +(9 - 8) = 1$	$(+4) + (-6) = -(6 - 4) = -2$
$(-25) + (+13) = -(25 - 13) = -12$	$(-75) + (+37) = -(75 - 37) = -38$
$(-6,4) + (+1,2) = -(6,4 - 1,2) = -5,2$	$(-12,3) + (-8) = -(12,3 + 8) = -20,3$
$(-12,5) + (-1) = -(12,5 + 1) = -13,5$	$(-4) + (+1,3) = -(4 - 1,3) = -2,7$
$(-32) + (-71) = -(32 + 71) = -103$	

4.3 جمع أعداد نسبية:

حل التمرين 1:

$$A = 2,1 + 0,8 + (-3,2) = 2,9 + (-3,2) = -(3,2 - 2,9) = -0,3$$

$$B = (-1,51) + (-0,14) + 2,4 = -(1,51 + 0,14) + 2,4$$

$$= (-1,65) + 2,4 = +(2,4 - 1,65) = 0,75$$

$$C = 0,3 + (-1) + (-1,7) = -(1 - 0,3) + (-1,7)$$

$$= (-0,7) + (-1,7) = -(0,7 + 1,7) = -2,4$$

$$D = (-1,17) + 3,2 + (-5,9) = +(3,2 - 1,17) + (-5,9)$$

$$= 2,03 + (-5,9) = -(5,9 - 2,03) = -3,87$$

$$E = (-1,1) + (-0,4) + 4,8 = -(1,1 + 0,4) + 4,8$$

$$= (-1,5) + 4,8 = +(4,8 - 1,5) = 3,3$$

حل التمرين 2:

$$A = 2,15 + (-1,37) + (-6,2) = +(2,15 - 1,37) + (-6,2)$$

$$= 0,78 + (-6,2) = -(6,2 - 0,78) = -5,42$$

$$B = (-0,48) + 2,43 + (-5,19) = +(2,43 - 0,48) + (-5,19)$$

$$= 1,95 + (-5,19) = -(5,19 - 1,95) = -3,24$$

$$C = (-2,3) + 0,5 + (-1,8) = -(2,3 - 0,5) + (-1,8)$$

$$= (-1,8) + (-1,8) = -(1,8 + 1,8) = -3,6$$

$$D = (-3,87) + (-1,93) + 4,87 = -(3,87 + 1,93) + 4,87$$

$$= (-5,8) + 4,87 = -(5,8 - 4,87) = -0,93$$

حل التمرين 3:

$$A = (+6) + (-3) + (-4) = 6 - (3 + 4) = 6 - 7 = -1$$

$$B = (-15) + (-118) + (+47) = -(15 + 118) + (+47) = (-133) + 47$$

$$= -(133 - 47) = -86$$

$$C = (+1,8) + (-1,2) + (+3,4) = (+1,8) + (+3,4) + (-1,2)$$

$$= +(1,8 + 3,4) + (-1,2) = 5,2 + (-1,2) = +(5,2 - 1,2) = 4$$

$$D = (+1,9) + (+2,4) + (-8,6) + (+12,7) = (+1,9) + (+2,4) + (+12,7) + (-8,6)$$

$$= +(1,9 + 2,4 + 12,7) + (-8,6) = 17 + (-8,6) = +(17 - 8,6) = 8,4$$

$$\begin{aligned}
 E &= (+8,92) + (-22) + (+12) + (-8,92) = \underline{(+8,92) + (+12)} + \underline{(-22) + (-8,92)} \\
 &= +(8,92+12) + [-(22+8,92)] = 20,92 + (-30,92) \\
 &= -(30,92 - 20,92) = -10
 \end{aligned}$$

حل التمرين 4:

$$\begin{aligned}
 A &= (+8,92) + (-22) + (+12) + (-8,92) = \underline{8,92+12} + \underline{(-22) + (-8,92)} \\
 &= 20,92 + (-30,92) = -(30,92 - 20,92) = -10
 \end{aligned}$$

$$\begin{aligned}
 B &= (-14) + (+5) + (-2) = (-14) + 5 + (-2) = \underline{(-14) + (-2)} + 5 \\
 &= (-16) + 5 = -(16+5) = -11
 \end{aligned}$$

$$C = (-2) + (-23) + (+33) = 33 + \underline{(-25)} = 33 - 25 = 8$$

$$\begin{aligned}
 D &= (+18) + \underline{(-13) + (-25)} = 18 + [-(13+25)] \\
 &= 18 + (-38) = -(38-18) = -10
 \end{aligned}$$

حل التمرين 5:

$$\begin{aligned}
 A &= (-0,8) + (+2,7) + (-3,7) + (-1,8) = 2,7 + \underline{(-0,8) + (-3,7) + (-1,8)} \\
 &= 2,7 + [-(0,8+3,7+1,8)] = 2,7 + (-6,3) = -(6,3-2,7) = -3,6
 \end{aligned}$$

$$\begin{aligned}
 B &= (+15) + (-6) + (+10) + (-5) = \underline{15+10} + \underline{(-6) + (-5)} \\
 &= 25 + [-(6+5)] = 25 + (-11) = 25 - 11 = 14
 \end{aligned}$$

$$\begin{aligned}
 C &= (-2) + (+12) + (-14) = 12 + \underline{(-2) + (-14)} \\
 &= 12 + [-(2+14)] = 12 + (-16) = -(16-12) = -4
 \end{aligned}$$

$$\begin{aligned}
 D &= (+13) + (-17) + (+14) + (-15) = \underline{13+14} + \underline{(-17) + (-15)} \\
 &= 27 + [-(17+15)] = 27 + (-32) = -(32-27) = -5
 \end{aligned}$$

حل التمرين 6:

$$\begin{aligned}
 A &= (+2,8) + (-8,9) + (-2,3) + (+5) = \underline{2,8+5} + \underline{(-8,9) + (-2,3)} \\
 &= 7,8 + [-(8,9+2,3)] = 7,8 + (-11,2) = -(11,2-7,8) = -3,4
 \end{aligned}$$

$$\begin{aligned}
 B &= (+3) + (-6) + (+5) + (-7) = \underline{3+5} + \underline{(-6) + (-7)} \\
 &= 8 + [-(6+7)] = 8 + (-13) = -(13-8) = -5
 \end{aligned}$$

$$\begin{aligned}
 C &= (+6) + (-7) + (-3) + (+5) = \underline{6+5} + \underline{(-7) + (-3)} \\
 &= 11 + [-(7+3)] = 11 + (-10) = 11 - 10 = -1
 \end{aligned}$$

$$D = (+12) + (-3) + (+8) + (-7) = \underline{12+8} + \underline{(-3)+(-7)}$$

$$= 20 + [-(3+7)] = 20 + (-10) = 20 - 10 = 10$$

حل التمرين 7:

$$A = (-6) + (-8) + (+5) + (-13) = \underline{(-6)+(-8)+(-13)} + 5$$

$$= [-(6+8+13)] + 5 = (-27) + 5 = -(27-5) = -22$$

$$B = (-7) + (-2) + (-9) + (+8) = \underline{(-7)+(-2)+(-9)} + 8$$

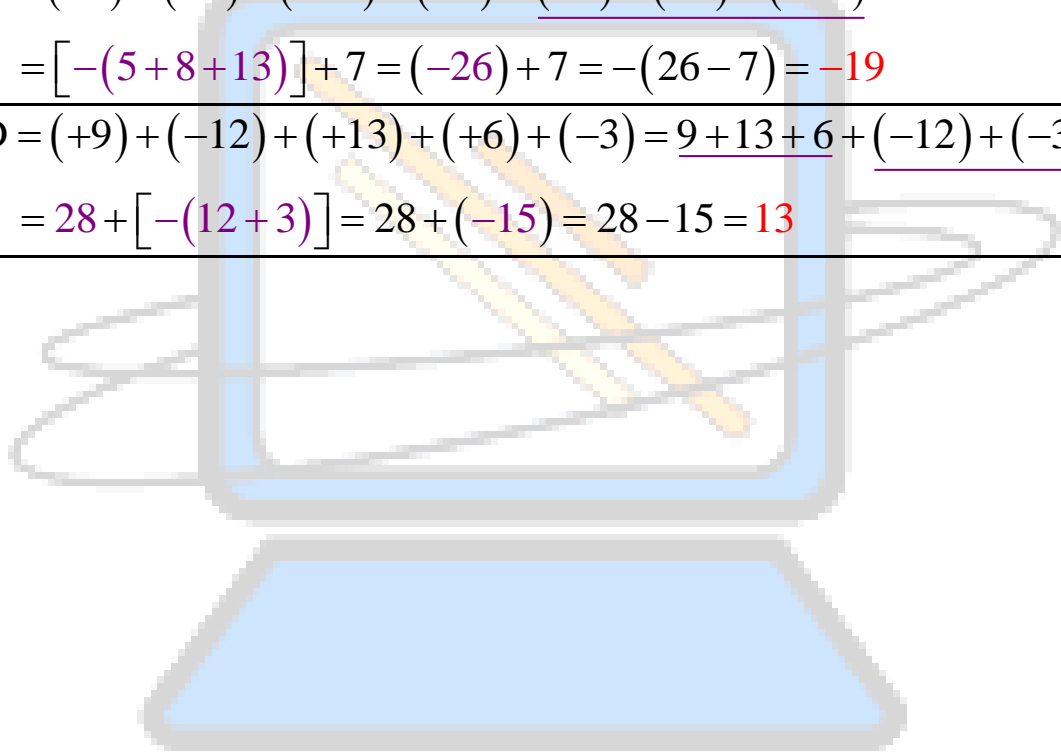
$$= [-(7+2+9)] + 8 = (-18) + 8 = -(18-8) = -10$$

$$C = (-5) + (-8) + (-13) + (+7) = \underline{(-5)+(-8)+(-13)} + 7$$

$$= [-(5+8+13)] + 7 = (-26) + 7 = -(26-7) = -19$$

$$D = (+9) + (-12) + (+13) + (+6) + (-3) = \underline{9+13+6} + \underline{(-12)+(-3)}$$

$$= 28 + [-(12+3)] = 28 + (-15) = 28 - 15 = 13$$



Latreche MIFA