

86) $S = (-8) + (-4) = \boxed{-12}$ ①
 $O = (-7) \times (-3) = \boxed{+21}$
 $N = (+12) \div (-6) = \boxed{-3}$
 $H = (+7) - (+5) = (+7) + (-5) = \boxed{+2}$
 $U = 5 \times (-2) = \boxed{-10}$
 $E = -8 - 9 = \boxed{-17}$
 $V = -16 \div 4 = \boxed{-4}$
 $I = -4 \times (-5) = \boxed{+20}$
 $J = (-2) \times (-5) \times (+1) \times (-3) \times (+2) = \boxed{-60}$
 $I = (-2) + (-5) + (+1) + (-3) + (+2) = (-10) + (+3) = \boxed{-7}$
 $N = -3 + 4 \times 8 = -3 + 32 = \boxed{+29}$
 $S = 7 + 6 \times (-2) = 7 - 12 = \boxed{-5}$
 $M = (-200 - 70) \div (-30) = (-270) \div (-30) = \boxed{+90}$
 $A = -10 + 4^2 = -10 + 16 = \boxed{+6}$
 $P = 38 - 5^2 = 38 - 25 = \boxed{+13}$
 $C = (-3)^2 - 5 \times 3 + 4 = 9 - 5 \times 3 + 4 = 9 - 15 + 4 = (-15) + 4 = \boxed{-11}$

$-60 < -17 < -12 < -10 < -7 < -5 < -4 < -3 < -2 < 2 < 6 < 13 < 20 < 21 < 29 < 90$
 J E || S U I S || U N || C H A M P I O N

70. $A = -3 + 4 \times (-5 + 7)$
 $= -3 + 4 \times (+2)$
 $= -3 + 8$
 $= \boxed{+5}$

$B = -6 - 5(8 - 2 - 3)$
 $= -6 - 5 \times (4 - 3)$
 $= -6 - 5 \times 1$
 $= -6 - 5$
 $= \boxed{-11}$

$C = (-5) \times (-4) - (10 - 14) \times 3$
 $= 20 - (10 - 14) \times 3$
 $= 20 - (-4) \times 3$
 $= 20 - (-12)$
 $= 20 + (+12)$
 $= \boxed{+32}$

71. $A = 16 \times 2 = 4 - 16$
 $= 32 - 4 - 16$
 $= 8 - 16$
 $= \boxed{-8}$

$B = -5 : 10 \times 12 + 50$
 $= -0,5 \times 12 + 50$
 $= -6 + 50$
 $= \boxed{+44}$

$C = 13 - 5 \times (-6) + 36 : (-9)$
 $= 13 + 30 + 36 : (-9)$
 $= 13 + 30 + (-4)$
 $= 43 + (-4)$
 $= \boxed{+39}$

$V = \frac{14 - 17}{15 - 12} = \frac{-3}{+3} = \boxed{-1}$

$W = 2 - \frac{-3 - 6}{18} = 2 - \frac{-9}{18} = 2 - (-0,5) = 2 + (+0,5) = \boxed{+2,5}$

$Y = \frac{(-2) \times (-3)}{-2 - 3} = \frac{+6}{-5} = \boxed{-1,2}$

$Z = \frac{(-7) \times 8 + 6}{-10 - (-2) \times 10} = \frac{-56 + 6}{-10 - (-20)} = \frac{-50}{-10 + (+20)} = \frac{-50}{+10} = \boxed{-5}$

$$76. 1) 1 \xrightarrow{+(-9)} (-8) \xrightarrow{\times(-5)} (+40)$$

$$(-4) \xrightarrow{+(-9)} (-13) \xrightarrow{\times(-5)} (+65)$$

$$2) \dots \xrightarrow{+(-9)} \dots \xrightarrow{\times(-5)} 35$$

$$\xleftarrow{(+9)} \quad \quad \quad \xleftarrow{:(-5)}$$

- $35 : (-5) = -7$
- $-7 + (+9) = (+2)$

Abdel a choisi le nombre (+2).

$$70) a) (-4) \times (7 + (-9))$$

$$= (-4) \times (-2)$$

$$= (+8)$$

$$b) (-12) \times 3 + (-15)$$

$$= (-36) + (-15)$$

$$= (-51)$$

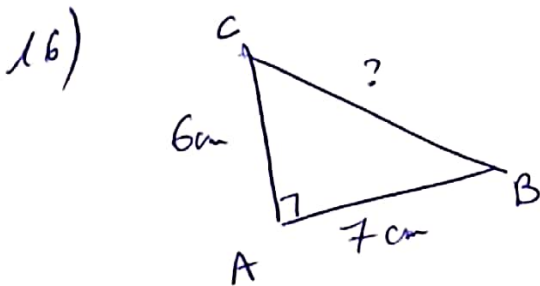
$$71) a) \frac{-24}{6 \times (-2)} = \frac{-24}{-12} = (+2)$$

$$b) (5 \times (-8)) - ((-12) + (-7))$$

$$= (-40) - (-19)$$

$$= (-40) + (+19)$$

$$= (-21)$$



Le triangle ACB est rectangle en A, d'après le théorème de Pythagore, on a:

$$AB^2 + AC^2 = BC^2$$

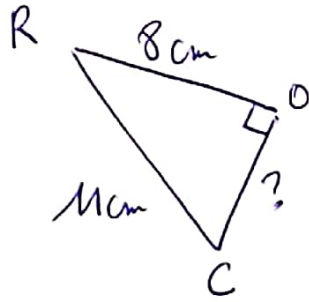
$$7^2 + 6^2 = BC^2$$

$$49 + 36 = BC^2$$

$$85 = BC^2$$

$$BC = \sqrt{85} \approx 9,2 \text{ cm}$$

17.



Le triangle ROC est rectangle en O, d'après le théorème de Pythagore, on a:

$$RC^2 = OC^2 + OR^2$$

$$11^2 = OC^2 + 8^2$$

$$121 = OC^2 + 64$$

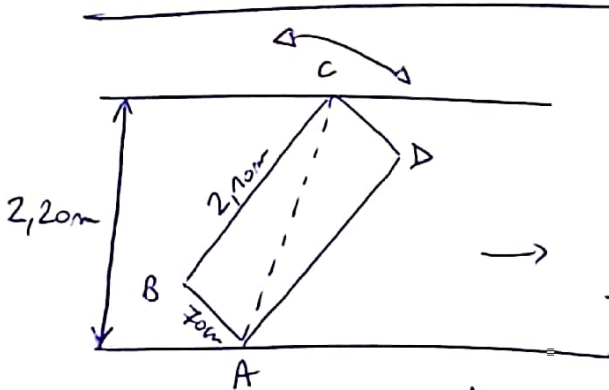
$$OC^2 = 121 - 64$$

$$OC^2 = 57$$

$$OC = \sqrt{57}$$

$$OC \approx 7,6 \text{ cm}$$

84.



Pour que l'armoire passe, il faut que la diagonale [AC] soit inférieure à 2,20m

Le triangle ABC est rectangle en B, d'après le théorème de Pythagore, on a:

$$AC^2 = BC^2 + AB^2$$

$$AC^2 = 2,10^2 + 0,70^2 \text{ (en m)}$$

$$AC^2 = 4,41 + 0,49$$

$$AC^2 = 4,9$$

$$AC = \sqrt{4,9} \approx 2,21 \text{ m}$$

Comme $2,21 \text{ m} > 2,20 \text{ m}$, il n'est pas possible de reclasser l'armoire (10cm de trop)