

# 4<sup>ème</sup> C I E 4 (V1): correction

## exercice 1:

$$\begin{array}{llll} 1) +40 & 3) -50 & 5) +2 & 7) -5 \\ 2) -20 & 4) -25 & 6) -30 & 8) -4 \end{array} \quad \begin{array}{l} 9) +3 \\ 10) -7 \\ 11) -4 \end{array}$$

## exercice 2:

$$a) ab - c = -3 \times (7) - 5 = -21 - 5 = \boxed{-26}$$

$$b) ab - c = 5 \times (-2) - (-2) = -10 + 2 = \boxed{-8}$$

## exercice 3:

| a  | b  | a <sup>2</sup> | b <sup>2</sup> | a - b <sup>2</sup>   | a + b      |
|----|----|----------------|----------------|----------------------|------------|
| -3 | 5  | 9              | 25             | -3 - 5 = -8          | -3 + 5 = 2 |
| 6  | -2 | 36             | 4              | 6 - (-2) = 6 + 2 = 8 | 6 - 2 = 4  |
| 6  | -3 | 36             | 9              | 6 - (-3) = 6 + 3 = 9 | 6 - 3 = 3  |

## exercice 4:

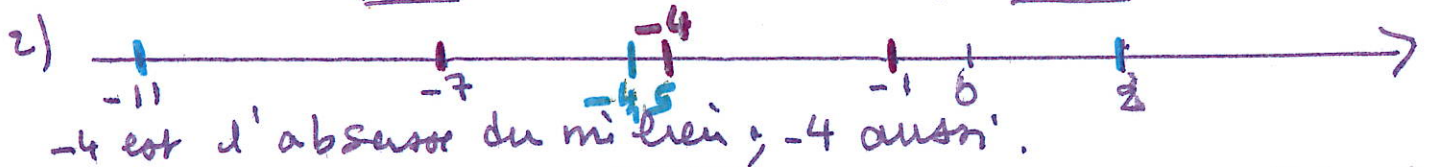
$$\begin{array}{lll} A = 6 - 4 \times (-10) & B = (-6 - 8) \div (-2 + 9) & C = [5 - (-2)] \times (7 - 10) \\ = 6 + 40 & = -14 \div 7 & = [5 + 2] \times (-3) \\ = \boxed{46} & = \boxed{-2} & = 7 \times (-3) = \boxed{-21} \end{array}$$

## exercice 5: \*V2

| x                   | 3                                                | -2                                               |
|---------------------|--------------------------------------------------|--------------------------------------------------|
| 2(x - 2)            | 2(3 - 2) = 2 \times 1 = \boxed{2}                | 2(-2 + 2) = 2 \times 0 = \boxed{0}               |
| 2x <sup>2</sup> - 1 | 2 \times (3)^2 - 1 = 2 \times 9 - 1 = \boxed{17} | 2 \times (-2)^2 - 1 = 2 \times 4 - 1 = \boxed{7} |

## Bonus:

$$\begin{array}{ll} 1) a) \bullet -7; -1 & b) \bullet -11; 2 \\ \bullet -1 - (-7) = -1 + 7 = 6 & \bullet 2 - (-11) = 2 + 11 = 13 \\ \bullet 3 & \bullet 6, 5 \\ \bullet -7 + 3 = \boxed{-4} & \bullet -11 + 3, 5 = \boxed{-4, 5} \end{array}$$



2) A est de signe négatif. B: compte 9 facteurs positifs, dont 12 (21 - 9) négatifs, donc est de signe positif.

$$\begin{array}{ll} a) A \times B: (-) \times (+) = \boxed{-} & d) A - B: ? \text{ Dépend des valeurs} \\ b) A \div B: (-) \div (+) = \boxed{-} & e) B - A: ? \\ c) A + B: ? \text{ Dépend des valeurs.} & f) A^2: (-) \times (-) = \boxed{+} \end{array}$$

## \*exercice 5:

$$\begin{array}{lll} 3x^2 - 1 & 3 \times (3)^2 - 1 = 27 - 1 = \boxed{26} & 3 \times (-2)^2 - 1 = 3 \times 4 - 1 = 12 - 1 = \boxed{11} \end{array}$$