



Polynômes

Flèves

Réponses



Equations

Série 4

Exercices blancs

Réponses



Série 4 Calcule les réels a, b et c sachant que Boutriau P 93 n°3 (ex 1-2-3)

$$1^{\circ}) \quad ax^2 + (b - 3)x + 2c - 1 = x^2 - 5x + 7$$

$$2^{\circ}) \quad 3t^2 + (2b - 1)t - 7 = (a - 3)t^2 + ct + b$$

$$3^{\circ}) \quad (a + b + c)y^2 + (a + b)y + a = 7y^2 - 2y + 4$$

$$4^{\circ}) \quad (a + 3b)h^2 + (a - 3b)h + 4 = 7h^2 - 5h + c$$

$$5^{\circ}) \quad (a + b)x^2 + c - 3a = (a - b)x^2 + (a - 2)x - 9$$

$$6^{\circ}) \quad (2a - b)m^2 + (a - 2b + 1)m + a + b + c = 0$$

7

+ NAM
p 77ex

Exemples Polynômes semblables

$$2x^2 + 3x + 4 = ax^2 + bx + c$$

Coef de degré 2

$$a = 2$$

Coef de degré 1

$$b = 3$$

Coef de degré 0/ terme indépendant

$$c = 4$$

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$$1 \quad ax^2 + (b-3)x + (2c-1) = x^2 - 5x + 7$$

Coef de degré 2

$$a = 1$$

Coef de degré 1

$$b-3 = -5$$

$$b = -5 + 3$$

$$b = -2$$

Coef de degré 0/ terme indépendant

$$2c-1 = 7$$

$$2c = 7 + 1$$

$$2c = 8$$

$$c = 4$$

Conclusion

$$a = 1 ; b = -2 ; c = 4$$

Vérification

$$1 \cdot x^2 + (-2-3)x + (2 \cdot 4 - 1) \stackrel{?}{=} x^2 - 5x + 7$$

$$x^2 - 5x + 7 \quad \stackrel{?}{=} \dots$$

oui!

2

$$3t^2 + (2b - 1) - 7t = (a - 3)t^2 + ct + b$$

Coef de degré 2

$$3 = a - 3$$

$$3 + 3 = a$$

$$a = 6$$

ROC

Coef de degré 1

$$-7 = c$$

$$c = -7$$

R

Coef de degré 0 / terme indépendant

$$2b - 1 = b$$

$$2b - b = 1$$

$$b = 1$$

Conclusion

$$a = 6 ; b = 1 \text{ et } c = -7$$

Vérification

$$3t^2 + (2 \cdot 1 - 1) - 7t \stackrel{?}{=} (6 - 3)t^2 + (-7)t + 1$$

$$3t^2 + 1 - 7t \stackrel{oui}{=} 3t^2 - 7t + 1$$

Conclusion $B(t) = 3t^2 - 7t + 1$

3

$$(a + b + c)y^2 + (a + b)y + a = 7y^2 - 2y + 4$$

Roc.

ROC

Coef de y^2

$$a + b + c = 7$$

$$-2 + c = 7$$

$$c = 7 + 2$$

$$c = 9$$

Coef de y

$$a + b = -2$$

$$4 + b = -2$$

$$b = -2 - 4$$

$$b = -6$$

terme indépendant

$$a = 4$$

Vérification

$$(4 - 6 + 9)y^2 + (4 - 6)y + 4 \stackrel{?}{=} \dots$$

$$7y^2 - 2y + 4 \text{ oui}$$

Conclusion : $a = 4; b = -6 \text{ et } c = 9$

$$D(y) = 7y^2 - 2y + 4$$

