

Mathématiques

Test d'entraînement

2M

Réponses valides

Exemples de réponses non valides  
(Ces réponses ne rapportent aucun point.)

1.  $\frac{2}{3}$        $0.\overline{6}$

$0.67$

$\frac{6}{9}$

$\frac{3}{4} \cdot \frac{8}{9}$

2.  $-x^2 + x$        $x - x^2$

$13 - x^2 + x - 13$

3.  $d^3 + d - d^2 - 1$        $d^3 - d^2 + d - 1$

$d(d^2 + 1) - (d^2 + 1)$

4.  $x \in \{-1; 1; 4\}$        $S = \{-1; 1; 4\}$   
 $x \in \{4; -1; 1\}$        $x = -1$  ou  $x = 1$  ou  $x = 4$   
 $x \in \{-1; 4; 1\}$        $x = -1, x = 1, x = 4$

$\{-2; -1; 1; 2\}$

$x^4 - 8x^3 + 15x^2 + 8x - 16$

5. quotient:  $2x^2 + 5x - 8$        $2x^2 + 5x - 8$

$r = -56$

$-56$

$$-56$$

$$2x^2 + 5x - 8$$

6.

$$r = -56$$

$$P(x) = (2x^2 + 5x - 8)(x - 7)$$

$$\text{reste: } -56$$

7 (a).

$$0$$

$$f(-5) = 0$$

$$x \in \left\{0; -\frac{9}{2}\right\}$$

$$\emptyset$$

7 (b).

$$x \in \left\{-5; \frac{1}{2}\right\}$$

$$x \in \left\{\frac{1}{2}; -5\right\}$$

$$x \in \left\{5; -\frac{1}{2}\right\}$$

$$S = \left\{-5; \frac{1}{2}\right\}$$

$$x = \frac{1}{2} \text{ ou } x = 5$$

7 (c).

$$-\frac{9}{4}$$

$$f\left(-\frac{b}{2a}\right)$$

$$-\frac{b}{2a}$$

$$\frac{-9}{4}$$

$$f\left(\frac{-9}{4}\right)$$

$$f\left(-\frac{9}{4}\right)$$

$$\frac{9}{-4}$$

$$f\left(\frac{9}{-4}\right)$$

8.

$$S = ] - 2; 3[$$

$$x \in ] - 2; 3[$$

$$x = ] - 2; 3[$$

$$S = [-2; 3]$$

9.

$x$		-2		1		3	
$f(x)$	+	0	-		+	0	-

$x$		-2		1		3	
$f(x)$	-	0	+		+	0	+

$x$		-2		1		3	
$f(x)$	+	0	+		+	0	+

$x$		-2		3		1	
$f(x)$	+	0	-	0	+	0	-

$$(2; -\frac{1}{3})$$

$$(x; y) = (2; -\frac{1}{3})$$

$$2 \text{ et } -\frac{1}{3}$$

$$S = (2; -\frac{1}{3})$$

10.

$$S = \{(2; -\frac{1}{3})\}$$

$$x = 2 \text{ et } y = -\frac{1}{3}$$

$$(x; y) = \{(2; -\frac{1}{3})\}$$

$$x = 2 \text{ et } y = -0,3$$

$$(x; y) \in \{(2; -\frac{1}{3})\}$$

$$(x; y) = \{2; -\frac{1}{3}\}$$

11.

$$54^\circ$$

$$54$$

$$3 \cdot 18^\circ$$

12.

$$\frac{7\pi}{20}$$

$$\frac{63\pi}{180}$$

$$7 \cdot \frac{\pi}{20}$$

$$(\frac{7\pi}{20})^\circ$$

$$\frac{7\pi}{20} \text{ radians}$$

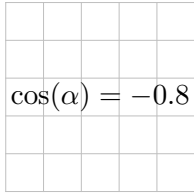
$$\frac{3\pi}{10} \cdot \frac{180}{2\pi}$$

13.

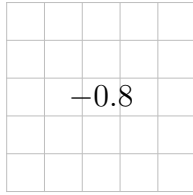
$$0$$

$$\sin(180^\circ)$$

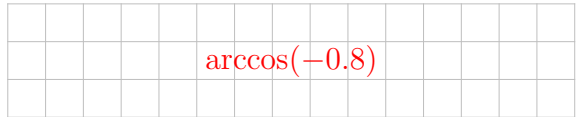
14.  $\cos(\alpha) = -0.8$



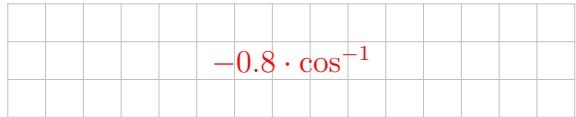
$-0.8$



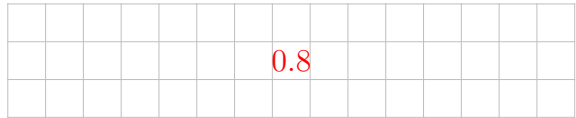
$\arccos(-0.8)$



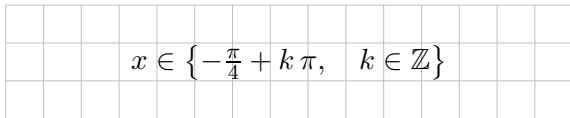
$-0.8 \cdot \cos^{-1}$



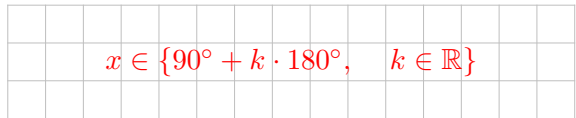
$0.8$



$x \in \{-\frac{\pi}{4} + k\pi, k \in \mathbb{Z}\}$

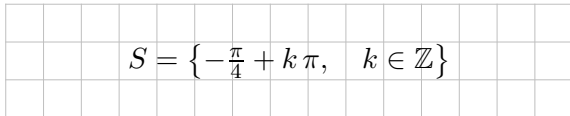


$x \in \{90^\circ + k \cdot 180^\circ, k \in \mathbb{R}\}$

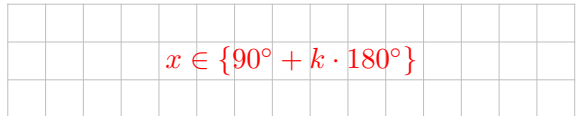


15.

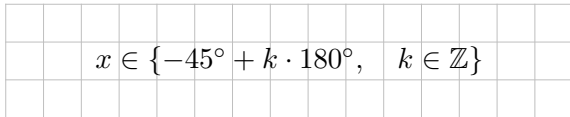
$S = \{-\frac{\pi}{4} + k\pi, k \in \mathbb{Z}\}$



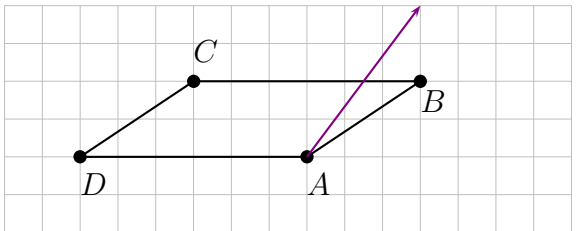
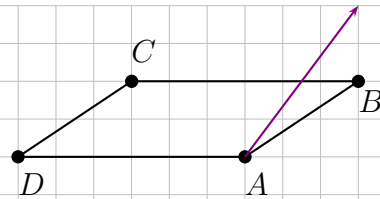
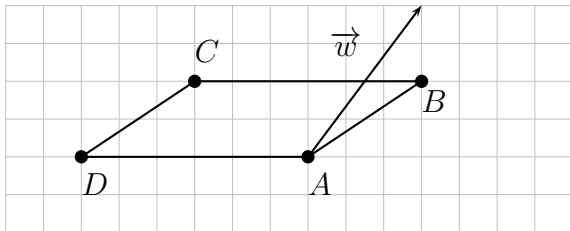
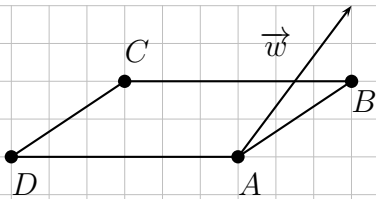
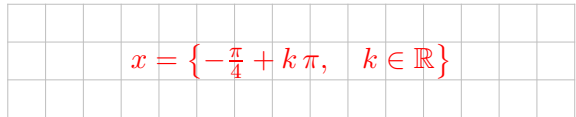
$x \in \{90^\circ + k \cdot 180^\circ\}$



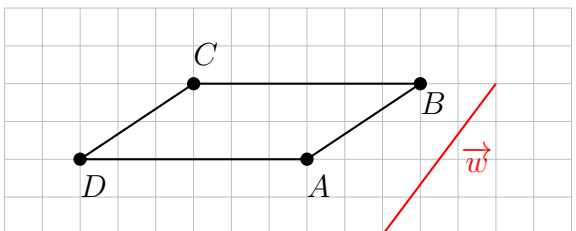
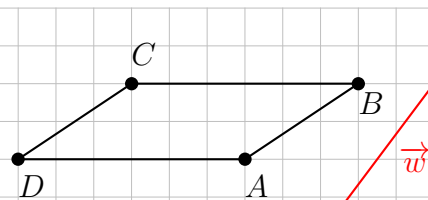
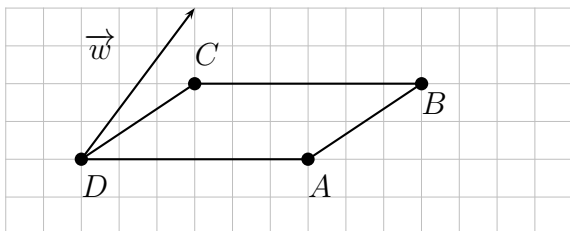
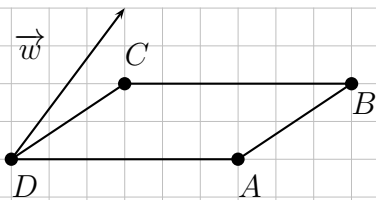
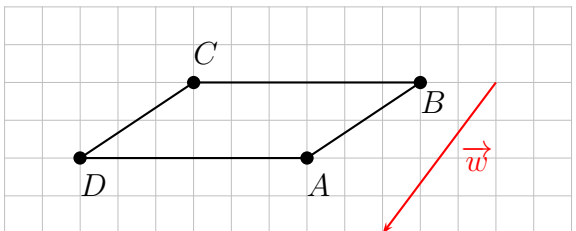
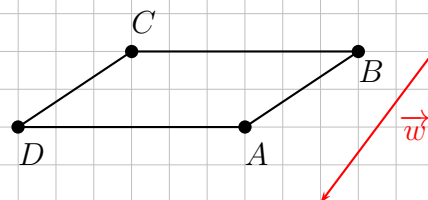
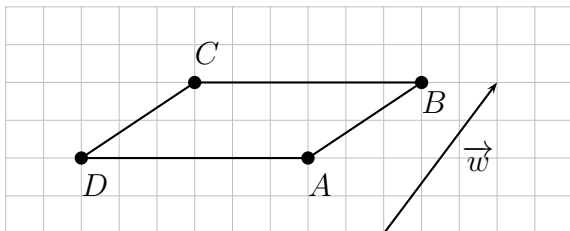
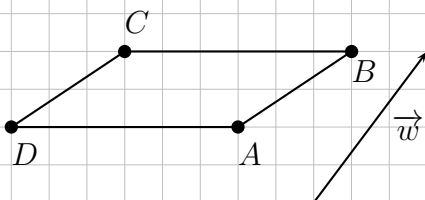
$x \in \{-45^\circ + k \cdot 180^\circ, k \in \mathbb{Z}\}$



$x = \{-\frac{\pi}{4} + k\pi, k \in \mathbb{R}\}$



16.



17.

$$(-12; 3)$$

$$\begin{pmatrix} -12 \\ 3 \end{pmatrix}$$

$$\begin{pmatrix} 12 \\ -3 \end{pmatrix}$$

$$(12; -3)$$

$$\begin{pmatrix} 2 \\ -5 \end{pmatrix}$$

$$\lambda = 3$$

$$12$$

18.

$$S = \{3\}$$

$$-3$$

$$3$$

$$\lambda = 6$$

$$\pm 6$$

19.

$$S = \{6\}$$

$$-6$$

$$6$$

20.

$$10$$

$$\sqrt{100}$$

$$\pm\sqrt{100}$$

$$\pm 10$$

21.

$$120$$

$$\begin{pmatrix} 120 \\ 0 \end{pmatrix}$$