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| المادة : الرياضيات | الحل 2 |
| الشعبة + ع. د | المستوى: 3 ثانوي |

$$\delta 49 + \beta 7 + \alpha = \text{ن} : \underline{\hspace{2cm}}$$

$$. 6 \geq \delta \quad 6 \geq \beta \quad 6 \geq \alpha \quad \alpha 121 + \beta 11 + \delta = \text{ن}$$

$$(01) \dots\dots\dots (\alpha 5 - \delta 2) 6 = \beta \Leftrightarrow 0 = \delta 48 - \beta 4 + \alpha 120$$

$$\left. \begin{array}{l} 0 = \alpha 5 - \delta 2 \\ 1 = \alpha 5 - \delta 2 \end{array} \right\} \Leftrightarrow 6 \geq \beta \geq 0$$

$$\alpha 5 = \delta 2 \Leftrightarrow 0 = \alpha 5 - \delta 2$$

$$\{ 5 \ 0 \} \ni \delta \Leftarrow$$

$$0 = \beta \wedge 0 = \alpha \Leftarrow 0 = \delta$$

$$(01) \dots\dots\dots 0 = \beta \wedge 2 = \alpha \Leftarrow 5 = \delta$$

$$\left. \begin{array}{l} 1 + 2 = \alpha \\ 3 + 5 = \delta \end{array} \right\} \begin{array}{l} \ni \delta \\ \ni \alpha \end{array} \quad 1 = \alpha 5 - \delta 2$$

$$(01) \dots\dots\dots 6 = \beta \quad 3 = \delta \quad 1 = \alpha \quad 6 \geq \delta \geq 0 \quad 6 \geq \alpha \geq 0$$

$$\{ (3 \ 6 \ 1) \ (5 \ 0 \ 2) \ (0 \ 0 \ 0) \} \ni (\delta \ \beta \ \alpha)$$

$$(01) \dots\dots\dots \{ 190 \ 247 \ 0 \} \ni \text{ن}$$

$$1 = \frac{2}{4} - \frac{2}{4} : (\Gamma) : \underline{\hspace{2cm}}$$

(0,0)

$$0 = : (\Delta)$$

$$(0 \ \bar{5}) \quad (0 \ \bar{5})$$

$$\frac{4}{5} = : \quad \frac{4}{5} = : ()$$

$$\frac{\bar{5}}{2} = \mu$$

$$0 = \theta^2 - 5 + (\theta) 4 - (\theta^2) (2)$$

$$(0.5) \dots\dots\dots 2(\theta \ \theta) \Delta$$

$$(0.5) \dots\dots\dots 2 = 0 \quad 0 = \Delta \Leftarrow 0 = \theta$$

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$$0 \neq \Delta \Leftrightarrow \left] \frac{\pi}{2} \ 0 \cup 0 \ \frac{\pi}{2} - \right[\theta$$

(0.5).....

$$\theta + \frac{2}{\theta} = 2$$

$$\theta - \frac{2}{\theta} = 1$$

ن ()₁

$$\left. \begin{aligned} \theta^2 + 1 = \frac{2}{\theta} &\Leftrightarrow \frac{\theta^2 + 1}{\theta} = 2 \\ \theta^2 + 1 = \frac{2}{\theta} &\Leftrightarrow \frac{\theta^2 + 1}{\theta} = 1 \end{aligned} \right\}$$

$$(\Gamma) \quad 1 = \frac{2}{\theta} - \frac{2}{\theta}$$

$$0 < \frac{2}{\theta} = \left] \frac{\pi}{2} \ \frac{\pi}{2} - \right[\theta$$

(0.5).....

$$0 < (\Gamma) \quad 1$$

(0.5).....

$$2 \quad () \quad 2$$

$$\rightarrow (1 +) = () : \underline{\hspace{2cm}}$$

$$(0.25) \dots \dots \dots] \infty + \infty - [=$$

$$(0.25) \dots \dots \dots \infty - = () \infty \leftarrow$$

$$(0.25) \dots \dots \dots 0 = () \infty \leftarrow$$

(0.25)

$$0 =$$

(0.25)

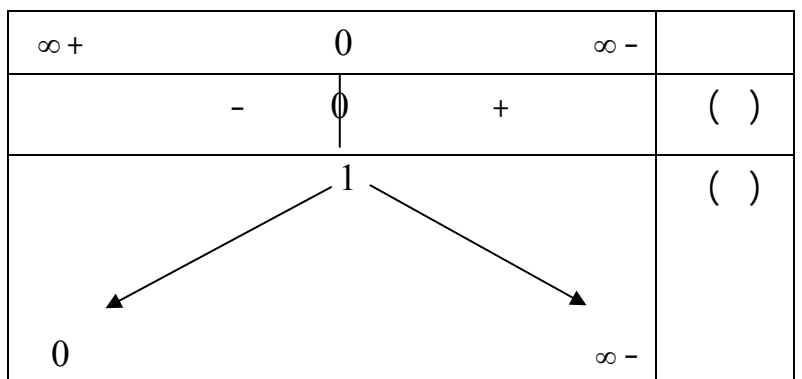
$$()$$

$$\infty + = \frac{()}{\infty \leftarrow}$$

(0.25)

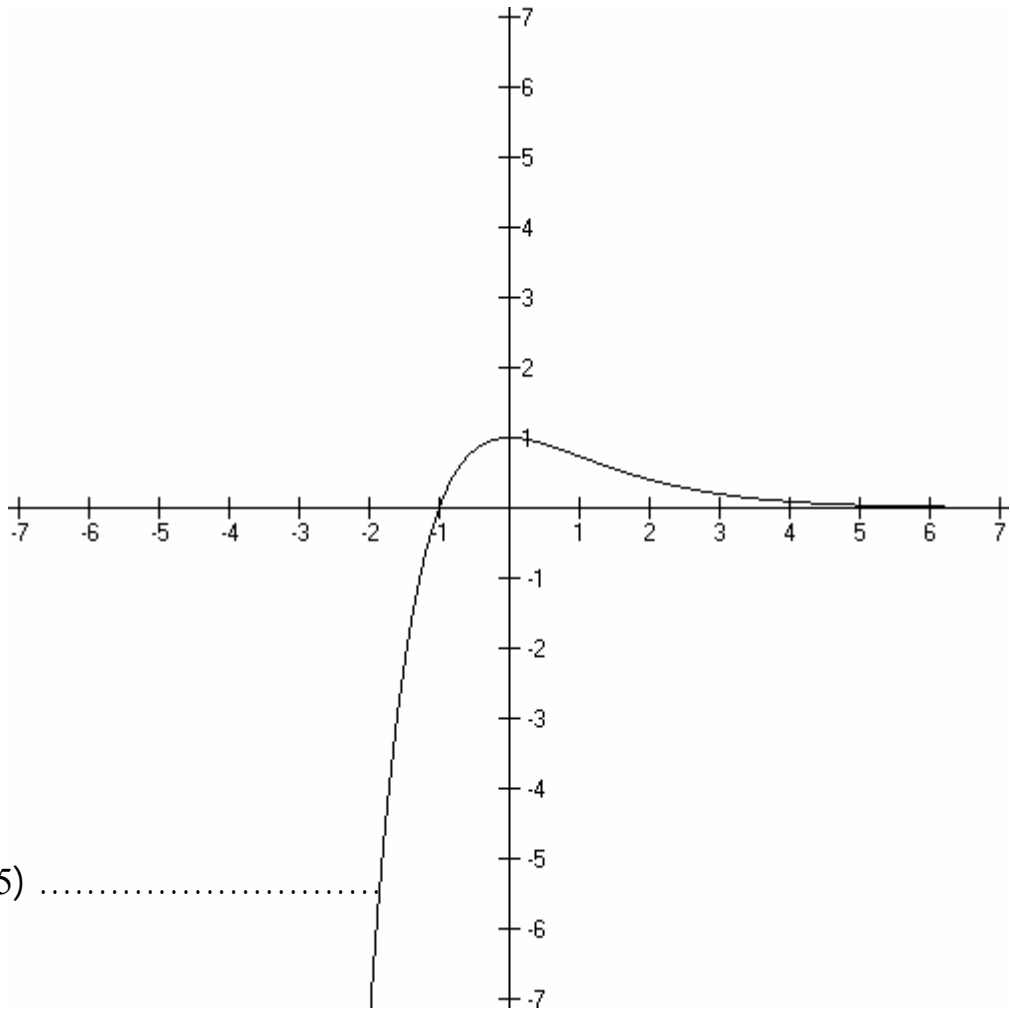
$$\rightarrow - = () \quad \mathbb{R} \ni \forall :$$

:



(0.25)

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(0.5)

(0.25)

(0.25)

(0.25)

(0.25)

(0.25)

(0.25)

(∞)

0 <

0 >

0 =

$$1 = (0)$$

$$1 - = \leftarrow 0 = ()$$

$$+ \cdot = () \quad (2)$$

$$: \frac{\quad}{\quad}$$

$$] \infty + , \infty - [=$$

$$\infty + = () \quad \infty \leftarrow$$

$$\left. \begin{array}{l} \infty + \\ \infty - \end{array} \right\} = () \quad \infty \leftarrow$$

$$\left. \begin{array}{l} 0 \\ 0 \end{array} \right\} = () \quad 0$$

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(0.25)

$$\infty - = \frac{(\quad)}{\infty \leftarrow}$$

(0.25)

$$\frac{0 \neq (\quad)}{\infty \leftarrow}$$

(0.25) ($\infty +$) =

$$0 = -(\quad)_{\infty \leftarrow}$$

(0.25) 0 =

(0) :

(0.25).....

$$\forall \epsilon \in \mathbb{R} \exists \delta = (\quad) + \dots$$

0 <

0 =

0 >

| | | | |
|------------|------------|------------|-----|
| $\infty +$ | $-$ | $\infty -$ | |
| + | 0 | - | () |
| $\infty +$ | | $\infty +$ | () |
| \swarrow | \searrow | | |
| | - | | |

| | | |
|------------|------------|-------|
| $\infty +$ | $\infty -$ | |
| - | | () 0 |
| \swarrow | \searrow | () 0 |
| | $\infty +$ | |
| | 0 | |

| | | |
|------------|------------|-----|
| $\infty +$ | $\infty -$ | |
| - | | () |
| \swarrow | \searrow | () |
| | $\infty +$ | |
| | $\infty -$ | |

(3 × 0,5)

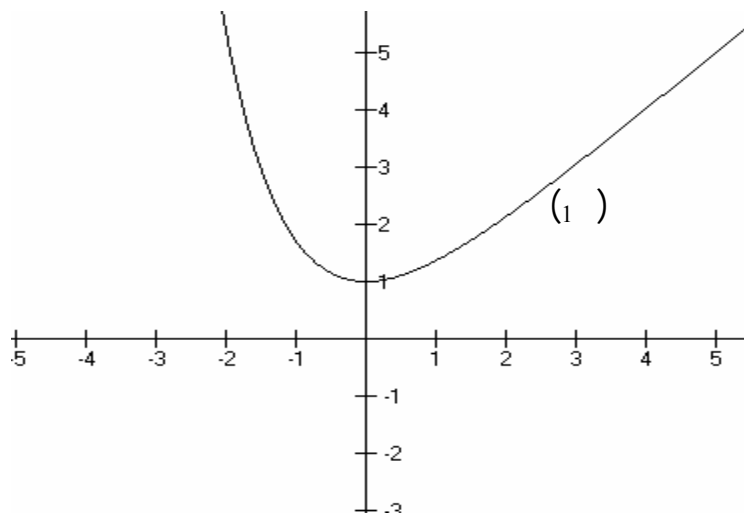
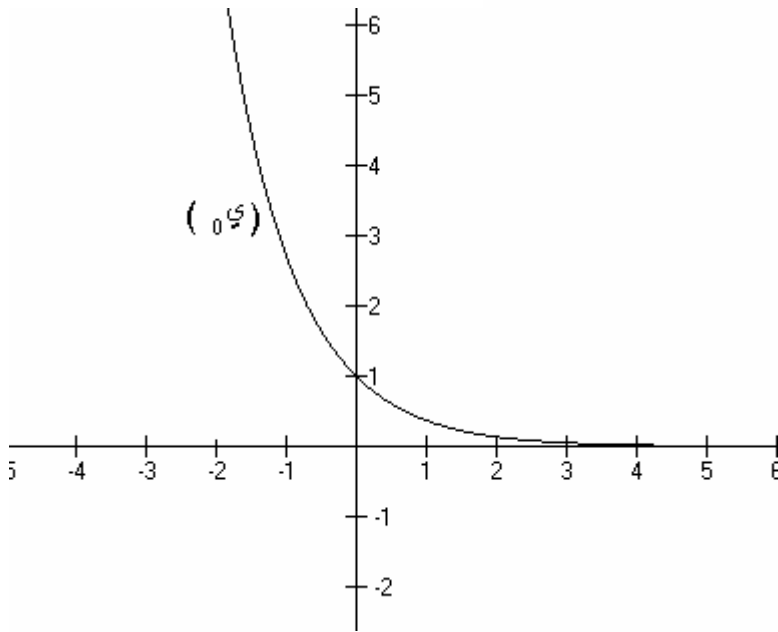
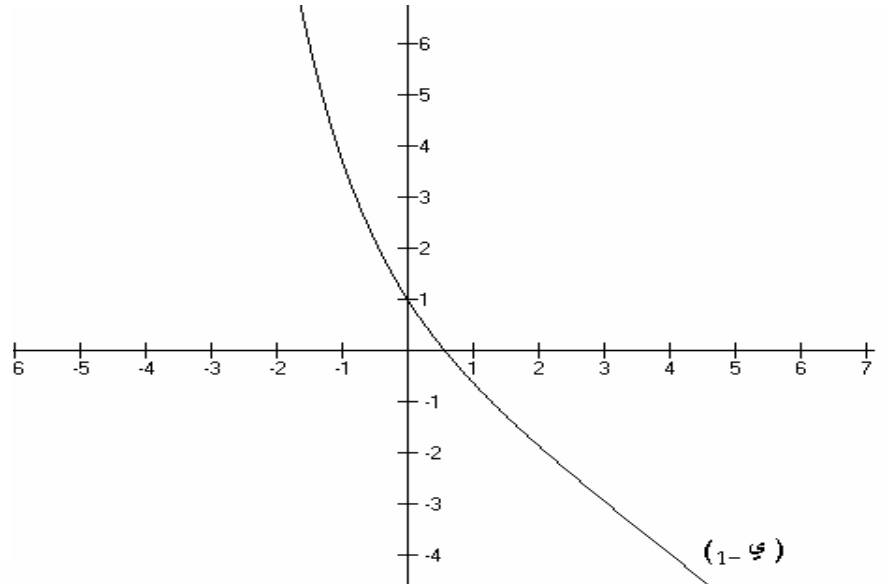
| | | | |
|------------|------------|------------|-----|
| $\infty +$ | 0 | $\infty -$ | |
| + | 0 | - | () |
| $\infty +$ | | $\infty +$ | () |
| \swarrow | \searrow | | |
| | 1 | | |

| | | |
|------------|------------|-------|
| $\infty +$ | $\infty -$ | |
| - | | () 0 |
| \swarrow | \searrow | () 0 |
| | $\infty +$ | |
| | $\infty -$ | |

| | | |
|------------|------------|--------|
| $\infty +$ | $\infty -$ | |
| - | | () 1- |
| \swarrow | \searrow | () 1- |
| | $\infty +$ | |
| | $\infty -$ | |

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(0.5)



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- (0.5)..... $[0, \infty[\Leftrightarrow \mathbb{R} \quad \mathbb{R}$ (
- (0.5)..... $] \infty + , 0[\Leftrightarrow$ (ج
- (0.25)..... (- -) ω
- (0.25)..... $\omega (1+) = : ()$ ω
- $0 = + \omega :$ (
- (0.5)..... $0 \geq$
- $0 <$
- 0.5)..... $\omega = 0 = -1$ (
- 0.5) $\omega > > 0 \quad 0 < -1$ (
- 0.5) $\omega < \quad 0 > -1$ (
- () = () = () (3)
- (01)..... $\omega (1+) = - :$
- $: 0 ()$ (
- (01)..... $0 + 0 \omega + (0 -) (+ \omega -) =$
- (0.5) $0 \omega 0 = \Leftarrow 0 =$ (ج