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Tarefa básica

1) (FUVEST)

A

Secundário = 0 -1 + 0 = -1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | α | 0 | 1 | α |
| 0 | 1 | 1 | 0 | 1 |
| 0 | -1 | 1 | 0 | -1 |

Determinante de A = 1 – (-1) = 2  
 Primário = 1 + 0 + 0 = 1

B

Secundário: 0 + 3 + 0 = 3

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | 0 | 0 | 3 |
| α | 1 | -1 | 4 |
| 0 | 0 | 0 | 3 |
| 0 | 1 | 1 | 1 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | -1 | 4 | 1 | -1 |
| 0 | 0 | 3 | 0 | 0 |
| 1 | 1 | 1 | 1 | 1 |

=

Primário:0 – 3 + 0 = - 3

Determinante de B = -3 - 3 = -6

2) (FATEC)

|  |  |  |  |
| --- | --- | --- | --- |
| X2 | 0 | x |  |
| 7,5 | 0 | 5 | 2 |
| 10 | 0 | 4 | 2 |
| 1 | 1 | 1 | 1 |

= 0

|  |  |  |
| --- | --- | --- |
| X2 | x |  |
| 7,5 | 5 | 2 |
| 10 | 4 | 2 |

|  |  |  |
| --- | --- | --- |
| a | b | c |
| d | e | f |
| g | h | i |

det

a. det

|  |  |
| --- | --- |
| e | F |
| h | i |

b. det

|  |  |
| --- | --- |
| d | F |
| g | i |

c. det

|  |  |
| --- | --- |
| d | E |
| g | h |

a. det – b. det + c. det

|  |  |
| --- | --- |
| 5 | 2 |
| 4 | 2 |

|  |  |
| --- | --- |
| 7,5 | 2 |
| 10 | 2 |

|  |  |
| --- | --- |
| 7,5 | 5 |
| 10 | 4 |

x2. det - x. det + det

|  |  |
| --- | --- |
| 5 | 2 |
| 4 | 2 |

det = 2

|  |  |
| --- | --- |
| 7,5 | 2 |
| 10 | 2 |

det = -5

|  |  |
| --- | --- |
| 7,5 | 5 |
| 10 | 4 |

det = -20

x2 \* 2 - x (-5) + (-20)

2x2 + 5x + 2 = 0

∆ = b2 – 4 \* a \* c

∆ = (5)2 -4 \* 2 \* 2

∆ = 25 – 16

∆ = 9

X =

X =

X1 = =

X2  = =

Matriz = x = ou x = - 2

3)

|  |  |  |  |
| --- | --- | --- | --- |
| x | 0 | 0 | 3 |
| -1 | x | 0 | 0 |
| 0 | -1 | x | 1 |
| 0 | 0 | -1 | -2 |

= 1

|  |  |  |  |
| --- | --- | --- | --- |
| x \* (-1) | 0 \* (-1) | 0 \* (-1) | 3 |
| -1 | X \* (-1) | 0 \* (-1) | 0 \* (-1) |
| 0 \* (-1) | 0 \* (-1) | -1 | -2 |

|  |  |  |  |
| --- | --- | --- | --- |
| -x | 0 | 0 | 3 |
| 1 | x | 0 | 0 |
| 0 | -1 | x | 1 |
| 0 | 0 | -1 | -2 |

=

|  |  |  |  |
| --- | --- | --- | --- |
| -x | 0 | 0 | 3 |
| 1 | x | 0 | 0 |
| 0 | -1 | x | 1 |
| 0 | 0 | -1 | 2 |

|  |  |  |  |
| --- | --- | --- | --- |
| -1 | x | 0 | 0 |
| -x | 0 | 0 | 3 |
| 0 | -1 | x | 1 |
| 0 | 0 | -1 | -2 |

|  |  |  |
| --- | --- | --- |
| 0 – (-x) \* x | 0 - (-x) \* 0 | 3 – (-x) \* 0 |
| -1 \* -0 \* x | X – 0 \* 0 | 1 – 0 \* 0 |
| 0 – 0 \* x | -1 -0 \* 0 | -2 \* 0 \* 0 |

= =

|  |  |  |
| --- | --- | --- |
| X2 | 0 | 3 |
| -1 | x | 1 |
| 0 | -1 | -2 |

= = 2x2 + x2 + 3

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| x | 1 | 0 | 0 | 0 |
| 0 | x | 1 | 0 | 0 |
| 0 | 0 | x | 1 | 0 |
| 0 | 0 | 0 | x | x |
| 0 | 0 | 0 | 1 | x |

|  |  |
| --- | --- |
| x | K |
| 1 | x |

= = x2 -1k = k3

f(x) = x5 – kx3

f(-2) = -32 + 8k = 8

8k = 40

K = =

5