

QUIZ TODAY - NO Calculator!

Synthetic division

End behavior

Sketch Graph - with all components
used in notes including region pts

HW 3-6 Due Tomorrow

Take a sheet of graph paper
& ruler for the warm-up.

P. 270

15) c

31) 3, multiplicity of 2; -4, multiplicity of 3; 0 multiplicity of 4

P. 291

20) $x^4 - 2x^3 + 4x^2 - 8x + 16$

P. 302

40) $P(x) = x^4 - 6x^3 + 11x^2 - 10x + 2$

$$40) \begin{cases} 2+\sqrt{3}, 1-i \\ 2-\sqrt{3}, 1+i \end{cases}$$

$$\begin{aligned} a &= 1 \\ b &= -(2+\sqrt{3}+2-\sqrt{3}) = -4 = b \\ c &= (2+\sqrt{3})(2-\sqrt{3}) = 4-3 = 1 = c \end{aligned}$$

$$x^2 - 4x + 1$$

$$P(x) = (x^2 - 4x + 1)(x^2 - 2x + 2)$$

$$=$$

Oct 17-8:51 AM

P. 270

15) c

31) 3, multiplicity of 2; -4, multiplicity of 3; 0 multiplicity of 4

P. 291

20) $x^4 - 2x^3 + 4x^2 - 8x + 16$

P. 302

40) $P(x) = x^4 - 6x^3 + 11x^2 - 10x + 2$

$$2 \pm \sqrt{3}$$

$$\begin{aligned} b &= -4 \\ c &= 1 \\ a &= 1 \end{aligned} \quad \begin{cases} x^2 - 4x + 1 \end{cases}$$

$$c = \text{prod} = (2+\sqrt{3})(2-\sqrt{3}) = 4-3 = 1$$

$$1 \pm i$$

$$\begin{aligned} b &= -2 \\ c &= 2 \\ a &= 1 \end{aligned} \quad \begin{cases} x^2 - 2x + 2 \end{cases}$$

$$c = \text{prod} = (1+i)(1-i) = 1 - i^2 = 1 - (-1) = 1+1 = 2$$

Oct 17-8:51 AM

P. 270

15) c 31) 3, multiplicity of 2; -4, multiplicity of 3; 0 multiplicity of 4

P. 291

20) $x^4 - 2x^3 + 4x^2 - 8x + 16$

$$f(x) = -9x^3 + 5x^2 + 3x^5 + 4x^4$$

$$f(x) = -x(x-1)^2(x+2)^3$$

P. 302

40) $P(x) = x^4 - 6x^3 + 11x^2 - 10x + 2$

Find all of the possible rational roots for the equation

$$3x^3 + 2x^2 + 4x + 5 = 0$$

(a) degree

(b) rational zeros (max. possible)

(c) x-intercepts (max. possible)

(d) turning points

(e) end behavior

Oct 17-8:51 AM

Warm-up:

$$k(x) = -x(x-4)^2(x+1)$$

Degree?

Graph with parts.

Max # 0's

Max # x-ints

Max # tps

Nov 2-11:32 AM

Warm-up:

$$k(x) = -x(x-4)^2(x+1)$$

Degree? 4

Max # 0's 4

Max # x-ints 4

Max # +ps 3

-x even

y-int (0,0)

p.i.r

$$k(-\frac{1}{2}) = -(-\frac{1}{2})(-\frac{1}{2}-\frac{8}{2})(-\frac{1}{2}+\frac{2}{2}) = -1$$

$$k(-\frac{1}{2}) = \frac{1}{2}(\frac{81}{4})(\frac{1}{2}) = 0$$

$$k(-\frac{1}{2}) = \frac{81}{16} \quad (-\frac{1}{2}, \frac{81}{16})$$

Z

M

T

C

1

1

C

0

1

C

4

2

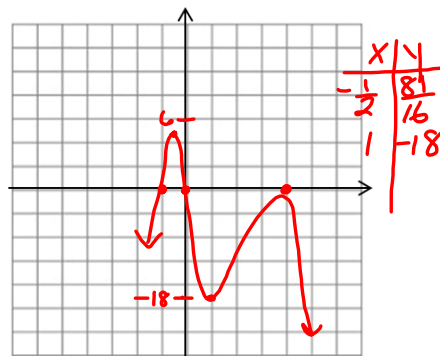
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Graph with Parts.



$$k(+1) = -(1)(1-4)^2(1+1) = -18$$

$$k(1) = -1(9)(2) = -18$$

$$k(1) = -18$$

Oct 24-2:45 PM

QUIZ TODAY - NO Calculator!

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Sketch Graph - with all components
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Oct 19-8:42 PM

QUIZ

HOMEWORK:

pg 301 - 303:

2, 6, 8, 14, 18, 20, 26, 34, 37

Oct 4-8:38 AM

Oct 30-3:06 PM