

Tuesday (1/17)  
 Open Study session  
 Rm 524 2:30-3:30

Wednesday: 1/18  
 Study session  
 During 5<sup>th</sup> period Exemtime  
 11:45 - End of Day  
 Rm 524

Your Exam is  
 Thursday @ 7:45 AM!

Jan 13-12:53 PM

(48)

$$x^3 = 81x$$

$$x^3 - 81x = 0$$

$$x(x^2 - 81) = 0$$

$$x(x+9)(x-9) = 0$$

$x = 0 \quad x = -9, 9$

$$x^4 - 81$$
~~$$x = \pm 81$$~~

$$(x^2 - 9)(x^2 + 9)$$

$$\pm 3 \quad x^2 = -9$$

$$\pm 3i$$

Jan 13-12:57 PM

(49) D

(50)  $x^3 + 4x^2 + x - 6$


(Σ) (1) 
$$\begin{array}{r} 1 \quad 4 \quad 1 \quad -6 \\ \phantom{1} \quad 1 \quad 5 \quad 6 \\ \hline 1 \quad 5 \quad 6 \quad 0 \end{array}$$

$x^2 + 5x + 6 = 0$   
 $(x+3)(x+2)$

$x = 1$   
 $x = -3$   
 $x = -2$

Jan 13-1:01 PM

(51) C

(52) 

(53)  $y = -(x+2)(x-4)$   
 $x = -2, 4$

(B)

$x = -2, 0, 3$   
 $-x(x+2)(x-3)$

Jan 13-1:04 PM

54  $4, -5i, 5i$

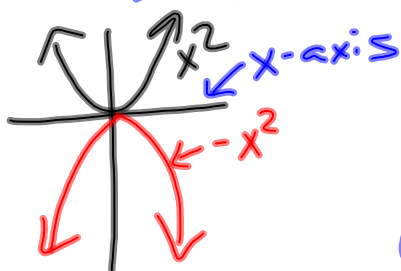
(A)  $(x-4)(x+5i)(x-5i)$

55  $x^4 - 5x^2 - 36 = 0$

(A)  $(x^2 - 9)(x^2 + 4) = 0$   
 $x^2 = 9 \quad x = \pm 3$        $x^2 = -4 \quad x = \pm 2i$

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56  $f(x) = x^2$        $f(x) = \frac{1}{2}(x+3)^2 - 2$



(-) reflect over the axis

(1/2) shrinks (wide)

(h)  $h = -3$  left 3

(k)  $k = -2$  Down 2


(A)

Jan 13-1:10 PM

(57)

$$y = (x-2)(x+1)(x+3) \quad \text{(B)}$$

$x^3$   $x=2, -1, -3$



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(58)

$$x^2 - 5x - 2 = 0$$
$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$
$$= \frac{5 \pm \sqrt{(-5)^2 - 4(1)(-2)}}{2(1)}$$
$$= \frac{5 \pm \sqrt{25 + 8}}{2}$$
$$= \frac{5 \pm \sqrt{33}}{2}$$

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(59)  $y = 4x^2 - 16x - 3$  CAB

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

$x = \frac{16}{2(4)} = \frac{16}{8} = 2^h$

$y = 4(2)^2 - 16(2) - 3$

$y = -19^k$

$y = 4(x-2)^2 - 19$

Complete the Square

$y + 3 = 4(x^2 - 4x + \frac{4}{2})$

$(\frac{-4}{2})^2 \quad (-2)^2$

$y + 19 = 4(x-2)^2$

$y = 4(x-2)^2 - 19$

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Review #2

1.  $y = -\frac{5}{3}x - 4$

$m = -\frac{5}{3}$   $b = -4$

DEC

2.  $-2x - y < 0$  Dotted


$-y < 2x$

$y > -2x$  flip sign

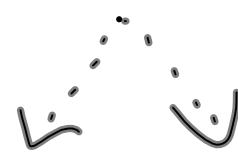
(B)

(J)

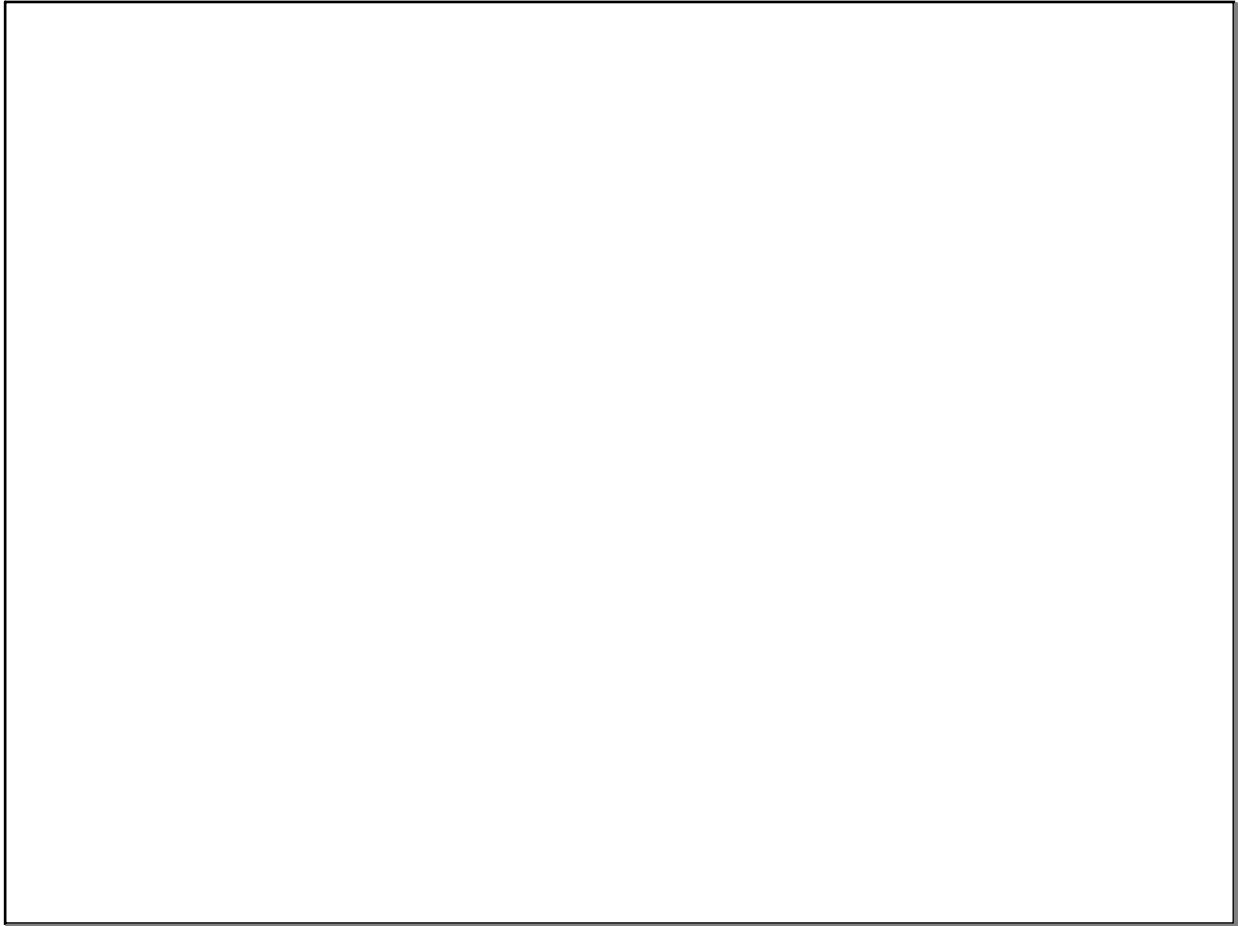
Jan 13-1:24 PM

(3) L  
 (4)  $f(x) = -|x+5|$   
 (M)  $h = -5$  left  
 (5)  $f(x) = |x| + 5$   
 (C) 

Jan 13-1:28 PM

(L)  $f(x) < -3|x|$   
 (N)   
 stretch  
 (7)  $f(x) = \frac{1}{2}|x+1|-3$   
 (-,+) | (+,+) shrink  
 (-,-) | (+,-) wide  
 v: (-1, -3) (K)

Jan 13-1:30 PM



Jan 13-1:33 PM