

# HW 19

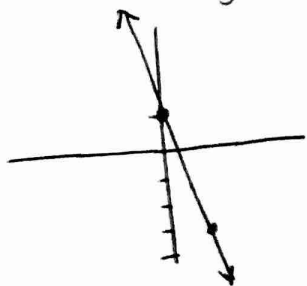
PI02

5.  $y = -4x + 1$

x-axis:  $-y = -4x + 1$   
 $y = 4x - 1$  no

y-axis:  $y = -4(-x) + 1$   
 $y = 4x + 1$  no

origin:  $-y = -4(-x) + 1$   
 $-y = 4x + 1$   
 $y = -4x - 1$  no

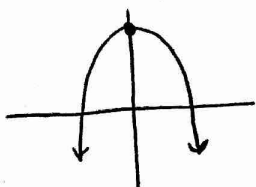


7.  $y = 7 - x^2$

x-axis:  $-y = 7 - x^2$   
 $y = -7 + x^2$  no

y-axis:  $y = 7 - (-x^2)$   
 $y = 7 - x^2$  yes

origin:  $-y = 7 - (-x)^2$   
 $-y = 7 - x^2$   
 $y = -7 + x^2$  no

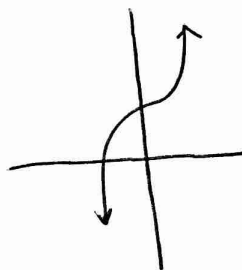


9.  $y = x^3 + 3$

x-axis:  $-y = x^3 + 3$   
 $y = -x^3 - 3$  no

y-axis:  $y = (-x)^3 + 3$   
 $y = -x^3 + 3$  no

origin:  $-y = (-x)^3 + 3$   
 $-y = -x^3 + 3$   
 $y = x^3 - 3$  no

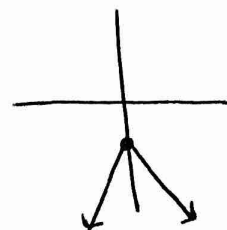


11.  $y = -|x| - 2$

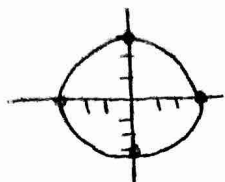
x-axis:  $-y = -|x| - 2$   
 $y = |x| + 2$  no

y-axis:  $y = -|-x| - 2$   
 $y = -|x| - 2$  yes

origin:  $-y = -|-x| - 2$   
 $y = |x| + 2$  no

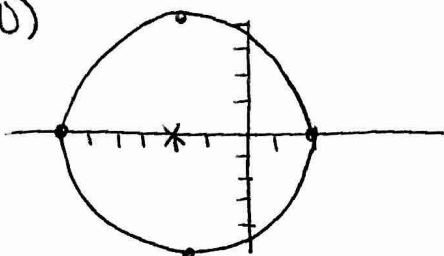


13.  $C: (0,0)$   
 $r = 3$



28.  $3x+9 = 5-5x-1$   
 $3x+9 = -5x+4$   
 $8x = -5$   
 $x = -5/8$

15.  $C: (-2,0)$   
 $r = 4$



29.  $(\frac{x}{5} - 3 = \frac{x}{3} + 1) \cdot 15$   
 $3x - 45 = 5x + 15$   
 $-60 = 2x$   
 $-30 = x$

16.  $C: (0,8)$   
 $r = 9$

30.  $(\frac{4x-3}{6} + \frac{x}{4} = x-2) \cdot 12$   
 $8x-6+3x = 12x-24$   
 $11x-6 = 12x-24$   
 $18 = x$

23.  $-x^3+7x-x^2+3 = -x^3-x^2+7x+7-4$   
 $-x^3-x^2+7x+3 = -x^3-x^2+7x+3 \checkmark$   
 identity

31.  $y = 3(0) - 1$   $(0, -1)$   
 $y = -1$   
 $0 = 3x - 1$   
 $1 = 3x$   $(1/3, 0)$   
 $1/3 = x$

24.  $3x^2-12x+24 = -10x-20-3x^2+6$   
 $3x^2-12x+24 = -3x^2-10x-14$   
 conditional

32.  $y = -5(0) + 6$   $(0, 6)$   
 $y = 6$   
 $0 = -5x + 6$   
 $-6 = -5x$   $(6/5, 0)$   
 $6/5 = x$

25.  $5x = 25$   
 $x = 5$

26.  $4x = -20$   
 $x = -5$

27.  $2x+10-7 = 3x-6$   
 $2x+3 = 3x-6$   
 $9 = x$

33.  $y = 2(0-4)$   $0 = 2(x-4)$   
 $y = 2(-4)$   $0 = x-4$   
 $y = -8$   $4 = x$   
 $(0, -8)$   $(4, 0)$