

Calculator Basics Notes

Part 1

Stuff to know:

1. When to use minus and negative

$$6 - (-2) \quad -2(-3)$$

2. When to use delete, clear, and quit

3. Always use parenthesis when taking a negative to a power

$$(-3)^2 \quad (-5)^3$$

4. fractions!! - put all fractions in parenthesis

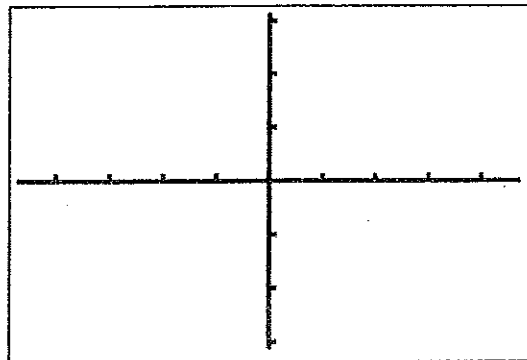
Part 2:

Z-Standard: the x and y axis start at -10 and end at 10

Z-Decimal: tracing this window creates nicely rounded numbers

Changing the Window: to set a specific window size, Press "Window" and set the following

x-min
x-max
x-scale
y-min
y-max
y-scale

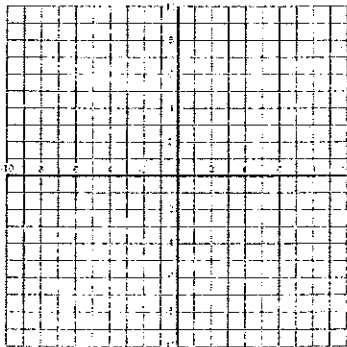


Part 1: Complete the table below

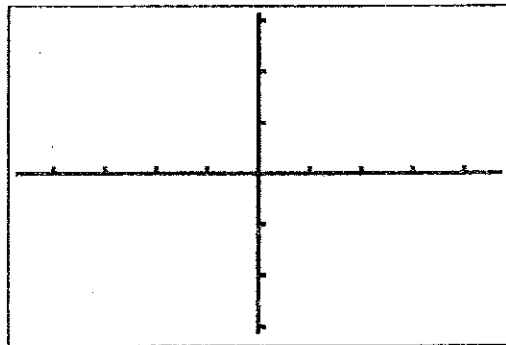
		Decimal	Improper fraction	Mixed number
1	$-3(1/4 - 2/9)$			
2	$2 \div (-1/4)^2$			
3	$\frac{2}{3} - 1\frac{3}{4}$			
4	$3\frac{1}{3} - 1\frac{1}{4}$			
5	$\frac{2}{3} \div 2\frac{7}{8} + 2.4$			

Part 2: Graph $y = -\frac{1}{2}x + 3$ on the following window settings

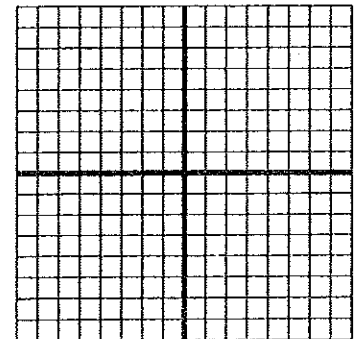
Zoom Standard



Zoom Decimal



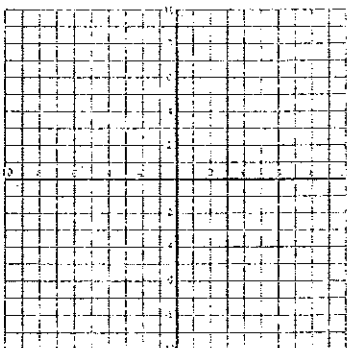
$-5 < x < 5$ $-20 < y < 20$



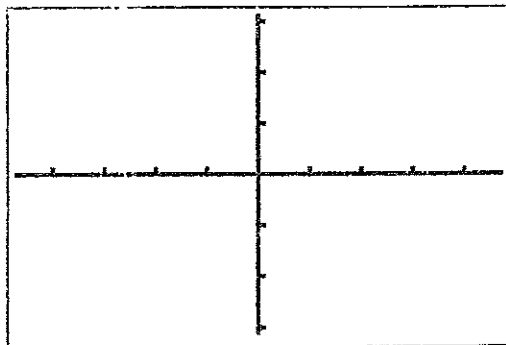
State the ordered pair of the equation above at $x = 1.6$

Graph $y = x^2 - 3x + 1$ on the following window settings

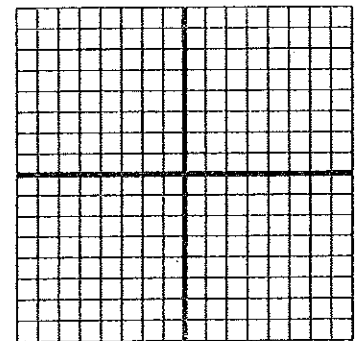
Zoom Standard



Zoom Decimal



$-5 < x < 5$ $-20 < y < 20$



State the ordered pair of the equation above at $x = -1.4$

Part 3: Solving – day 2

1. $\ln(x) = -x$

2. $e^x = x^2 - 2$

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

4. $x^3 + 4x^2 - x + 1 = 0$

5. $2^x - 2 = x$

6. \ast z-trig
 $\sin(x) = x^2 - 1$

7. \ast z-trig
 $2^{\sin(x)} = 1$

8. \ast z-trig
 $6x - \cos(x) = 1/x$

9. \ast z-trig
 $\frac{\sin(x)}{x} = x^2$

Find the Zeros of the following and sketch on zoom standard:

10. $f(x) = 4x - 3$

11. $f(x) = x^2 + 3x - 5$

12. $g(x) = x^3 - 2x^2 + x - 3$

13. $g(x) = 2x^4 + x^2 - 1$

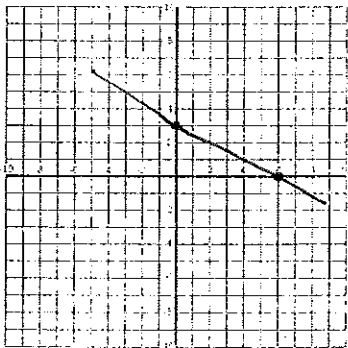
14. $h(x) = \sin x$ [use z-trig]

Part 1: Complete the table below

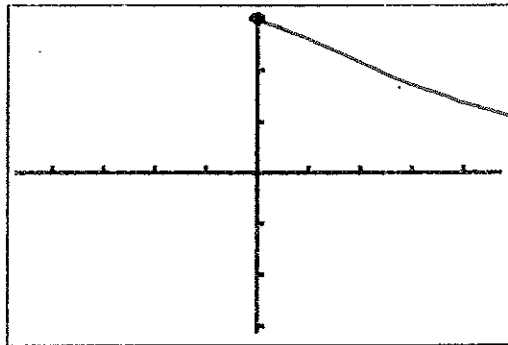
		Decimal	Improper fraction	Mixed number
1	$-3(1/4 - 2/9)$	$-1.0\overline{83}$	$-\frac{1}{12}$	$-\frac{1}{12}$
2	$2 \div (-1/4)^2$	32	→	
3	$\frac{2}{3} - 1\frac{3}{4}$	$-1.0\overline{83}$	$-\frac{13}{12}$	$-1\frac{1}{12}$
4	$3\frac{1}{3} - 1\frac{1}{4}$	$2.0\overline{83}$	$\frac{25}{12}$	$2\frac{1}{12}$
5	$\frac{2}{3} \div 2\frac{7}{8} + 2.4$	2.632	$\frac{908}{345}$	$2\frac{218}{345}$

Part 2: Graph $y = -\frac{1}{2}x + 3$ on the following window settings

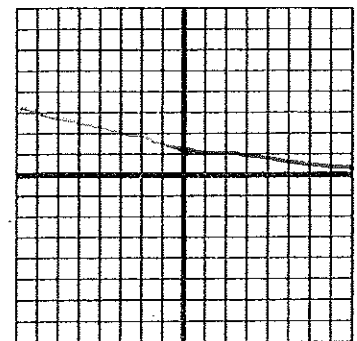
Zoom Standard



Zoom Decimal



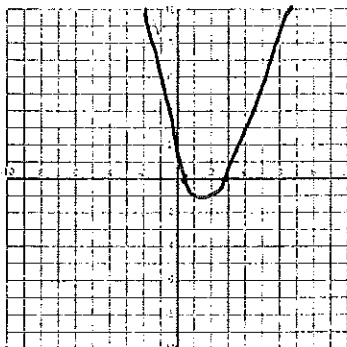
$-5 < x < 5$ $-20 < y < 20$



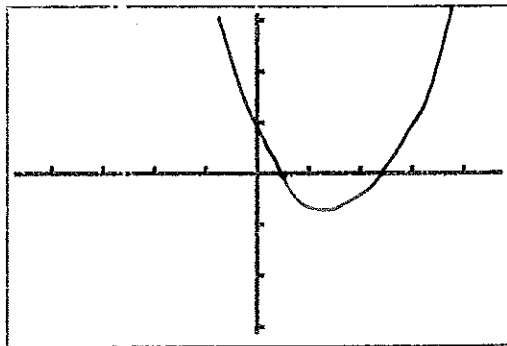
State the ordered pair of the equation above at $x = 1.6$ $(1.6, 2.2)$

Graph $y = x^2 - 3x + 1$ on the following window settings

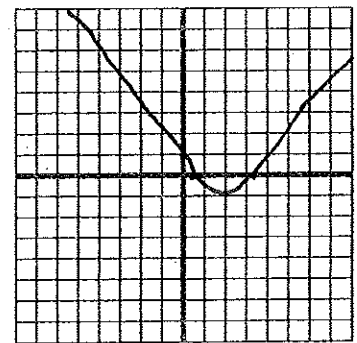
Zoom Standard



Zoom Decimal



$-5 < x < 5$ $-20 < y < 20$



State the ordered pair of the equation above at $x = -1.4$ $(-1.4, 7.16)$

Part 3: Solving - day 2

1. $\ln(x) = -x$

$x = .57$

2. $e^x = x^2 - 2$

$x = -1.49$

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

$x = \pm .707$

4. $x^3 + 4x^2 - x + 1 = 0$

$x = -4.3$

5. $2^x - 2 = x$

$x = -1.74 \text{ \& } 2$

6. ^{z-trig}
 $\sin(x) = x^2 - 1$

$x = -.64 \text{ \& } 1.4$

7. ^{z-trig}
 $2^{\sin(x)} = 1$

$x = 0$
 ± 3.14
 ± 6.28

8. ^{z-trig}
 $6x - \cos(x) = 1/x$

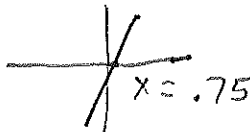
$x = -.34 \text{ \& } .49$

9. ^{z-trig}
 $\frac{\sin(x)}{x} = x^2$

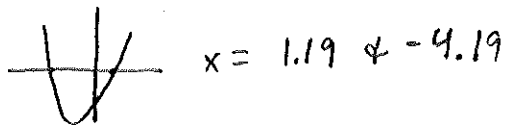
$x = \pm .93$

Find the Zeros of the following and sketch on zoom standard:

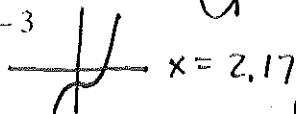
10. $f(x) = 4x - 3$



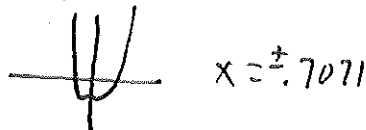
11. $f(x) = x^2 + 3x - 5$



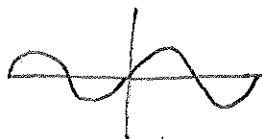
12. $g(x) = x^3 - 2x^2 + x - 3$



13. $g(x) = 2x^4 + x^2 - 1$



14. $h(x) = \sin x$ [use z-trig]



$x = 0, \pm 3.14, \pm 6.28$