Algebra 2 TUESDAY 10-16-12 CLASS NOTES

(10) $\dfrac{2i}{-2-10i} = \dfrac{i}{-1-5i} \cdot \dfrac{-1+5i}{-1+5i}$

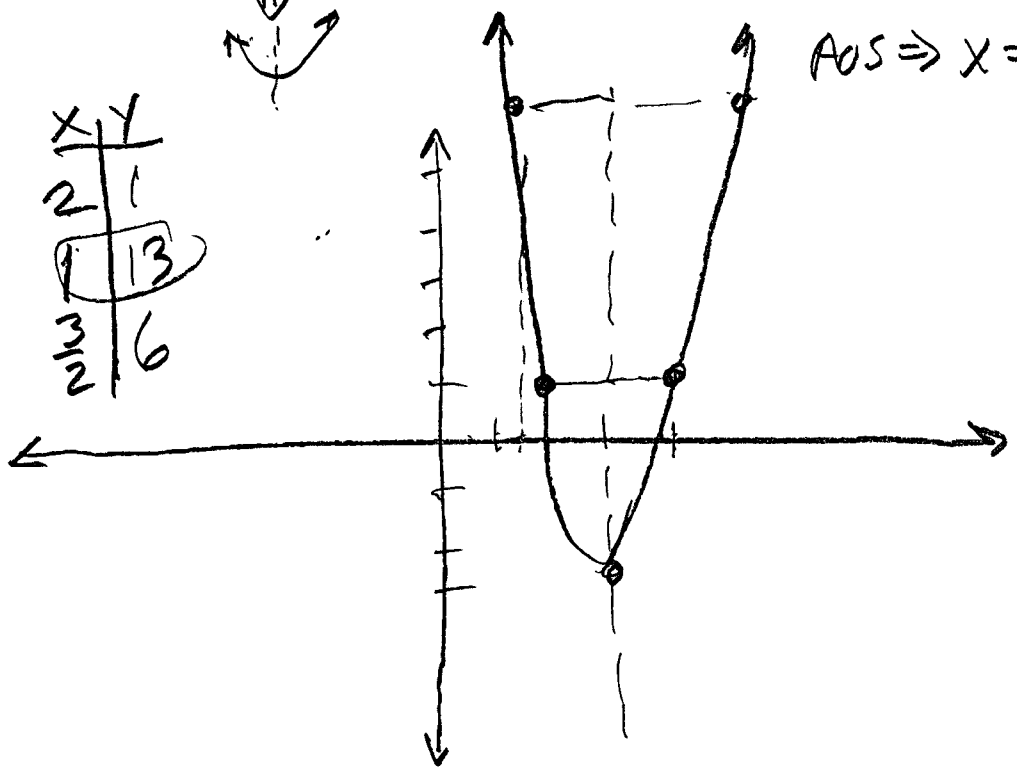
$= \dfrac{-i-5}{1+25} = \dfrac{-5-i}{26}$

$= \boxed{-\frac{5}{26} - \frac{1}{26}i}$

(22) $y = 4(x-3)^2 - 3$ $\quad V(3,-3)$ (h, k)

AOS $\Rightarrow x = 3$

x	y
2	1
1	13
$\frac{3}{2}$	6



(39) $1v^2 - 18v - 68 = -5$

$1v^2 - 18v + \{9^2\} = 63 + \{81\}$

$(v-9)^2 = 144$

$v - 9 = \pm\sqrt{144} = \pm 12$

$v = 9 \pm 12$ $\boxed{v = \{-3, 21\}}$ ✓ ✓

$21 \times 21 = 441$

$18 \times 21 = 378$

$42 + 36 = 78$

$441 - 378 = 63$

(13) $$\frac{-x^4y^4 \cdot y}{(2x^2y^3)^2} = \frac{-x^4y^5}{4x^4y^6}$$

$$= \boxed{\frac{-1}{4y}}$$

---

(84) $$|-2+2i| = \sqrt{(-2)^2+(2)^2}$$

$$= \sqrt{8}$$

$$= \sqrt{4}\sqrt{2}$$

$$= \boxed{2\sqrt{2}}$$

---

(54) Find d ⇒ STATE Number & type of sol.

$$-10k^2 - 13k - 1 = -10k + 5$$

$$10k^2 + 3k + 6 = 0$$

$a = 10$ $\quad b^2 - 4ac$

$b = 3$ $\quad (3)^2 - 4(10)(6)$

$c = 6$ $\quad 9 - 240 = \boxed{-231 = d}$

⊘ real roots 2 complex

(31) $x^2 - 30 = -x$

$1x^2 + x - 30 = 0$

Sum = 1

prod = −30

$-5 \quad +6$

$(x-5)(x+6) = 0$ $\boxed{x = \{5, -6\}}$

(2) $f(N) = 2N^2 + \frac{7}{4}N$ find $f(-\frac{8}{9})$

$f(-\frac{8}{9}) = 2(-\frac{8}{9})^2 + \frac{7}{4_1}(-\frac{8}{9})^2$

$= 2(\frac{64}{81}) - \frac{14}{9}$

$= \frac{128}{81} - \frac{126}{81}$

$\boxed{f(-\frac{8}{9}) = \frac{2}{81}}$