(2) $h(a) = -a + 5 \quad h(-2) = ?$

$$h(-2) = -(-2) + 5 = 7$$

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(6) $h(N) = 4N \quad h(-3-N) = ?$

$$h(-3-N) = 4(-3-N)$$

$$= -12 - 4N$$

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(14) $$\frac{9+2i}{-4i} = -\frac{9+2i}{4i} \cdot \frac{i}{i}$$

$$= -\frac{9i + 2i^2}{4i^2}$$

$$= \frac{-2 + 9i}{4}$$

Complex $a+bi$

MONDAY 12-17-12 CLASS NOTES

Algebra 2

(Ex) $\frac{1}{3+\sqrt{2}} \cdot \frac{3-\sqrt{2}}{3-\sqrt{2}} = \frac{3-\sqrt{2}}{9-2}$

$= \boxed{\frac{3-\sqrt{2}}{7}}$

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(12) $\left(\frac{2N^0}{N^0 \cdot -3N^3}\right)^0 = \boxed{1}$

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(11) $\frac{\cancel{p^3}}{-3\cancel{p^3}} = \boxed{-\frac{1}{3}}$

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(13) $\left[\frac{b^{-3}\,b^{-1}}{3b^2}\right]^3 = \left[\frac{b^{-4}}{3b^2}\right]^3 = \left[\frac{1}{3b^6}\right]^3$

$= \boxed{\frac{1}{27b^{18}}}$

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(7) $-2N^2 \cdot 3N^3 \cdot 2N^2 = \boxed{-12N^7}$

(17) $p^2 + 8p = -15$

$p^2 + 8p + 15 = 0$

sum = b = 8

prod = ac = 15

$+3 \quad +5$

$(p+3)(p+5) = 0$

$p = \{-3, -5\}$

(Ex) $3p^2 + 24p = -45$

$3p^2 + 24p + 45 = 0$

$3(p^2 + 8p + 15) = 0$

$3(p+3)(p+5) = 0$

$p = \{-3, -5\}$

(29) $19N^2 + 18N = -10 + 7N^2 + 11N$

$-7N^2 - 11N \qquad -7N^2 - 11N$

$12N^2 + 7N + 10 = 0$

$a = 12$ $\qquad b^2 - 4ac$

$b = 7$ $\qquad (7)^2 - 4(12)(10)$

$c = 10$ $\qquad 49 - 480 = -431 = d$

$$N = \frac{-b \pm \sqrt{d}}{2a} = \frac{-7 \pm i\sqrt{431}}{24}$$

QUADRATIC Formula

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(37) $(8x + 7x^3) - (2x^3 + 2x^2 - 2x)$

$8x + 7x^3 - 2x^3 - 2x^2 + 2x$

$10x + 5x^3 - 2x^2$

$5x^3 - 2x^2 + 10x$

(40) $|-5-i|$

$= |-5-1i|$

$\sqrt{(-5)^2+(-1)^2} = \sqrt{25+1} = \boxed{\sqrt{26}}$