7-8-14

sec 7.2 C1

#17.

$s + t = -5$ (A.)

$s - t = 3$ (B.)

$+t \quad +t$

sub. (B.) into (A.)

$s = 3 + t$

(A.) $s + t = -5$

$\Downarrow$

$3 + t + t = -5$

$3 + 2t = -5$

$2t = -8$

$t = -4$

$\rightarrow$ (A.): $s + (-4) = -5 \Rightarrow s = -1$

solution: $(-1, -4)$

7-9-14

7.2

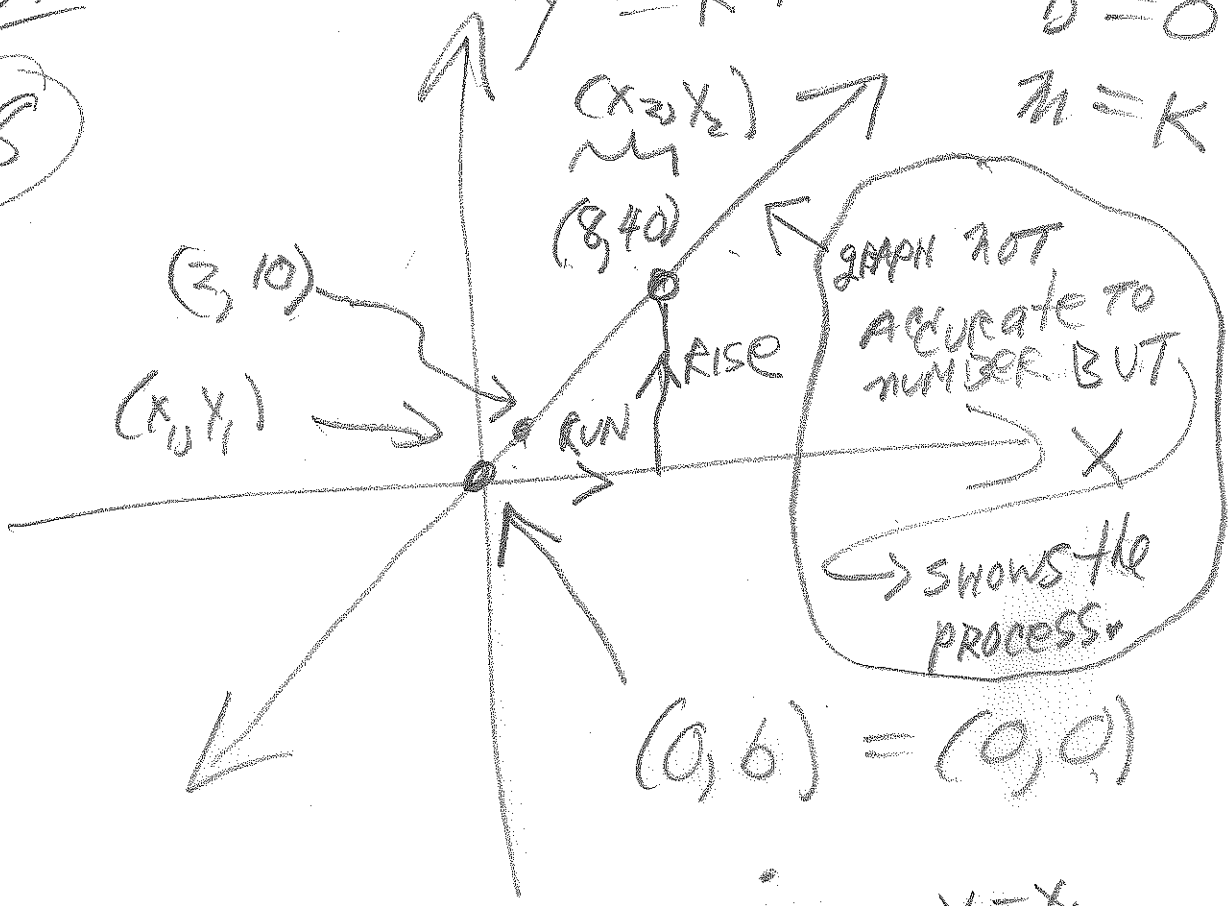
#8

$y = mx + b$

(1)

$y = kx \leftarrow b = 0$

$m = k$



$$\text{slope} = k = \frac{\text{rise}}{\text{run}} = \frac{y_2 - y_1}{x_2 - x_1}$$

$$k = \frac{y_2 - y_1}{x_2 - x_1}$$

$$k = \frac{40 - 0}{8 - 0} = \frac{40}{8}$$

$y = y_2$

$x = x_2$

$$k = 5$$

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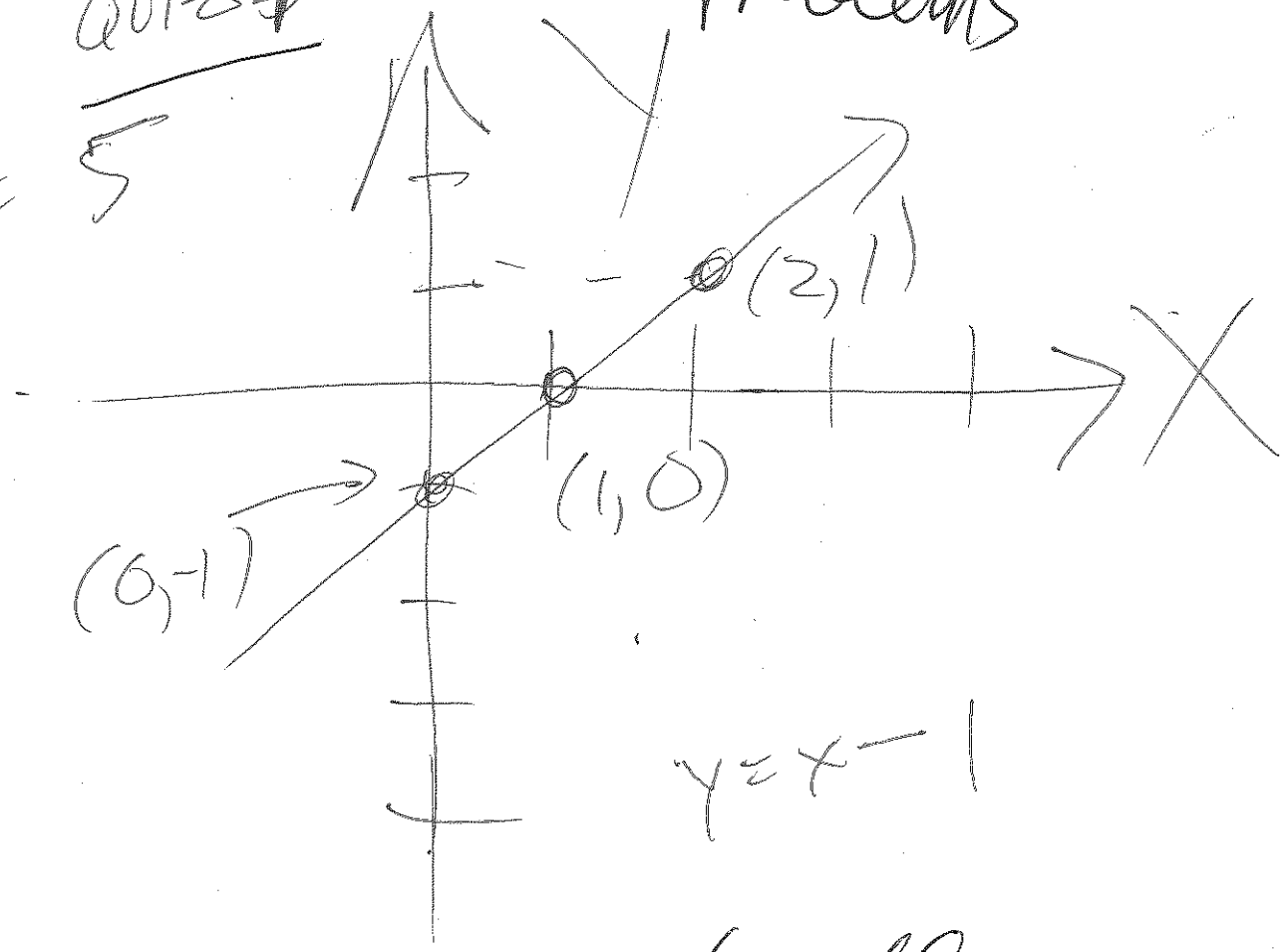
#5



Quiz 5 GRADED problems

(1) (1,4)

$m = \frac{-2}{2} = -1$

(3,6)

-2,-2

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(1) $a^1 = a^0$

(2) $a^0 = 1$

(3) $a^m \cdot a^n = a^{(m+n)} = a^{m+n}$

(4) $\frac{a^m}{a^n} = a^{(m-n)}$

(5) $(a^m)^n = a^{m \cdot n} \Rightarrow (2^3)^2 = 2^6$

$= 64$

$= 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2$

(6) $(ab)^n = a^n \cdot b^n$

$(ab)^3 = (ab) \cdot (ab) \cdot (ab)$

$= a^3 \cdot b^3$

(7) $\left(\frac{a}{b}\right)^n = \frac{a^n}{b^n} \Rightarrow \left(\frac{a}{b}\right)^3 = \left(\frac{a}{b}\right)\left(\frac{a}{b}\right)\left(\frac{a}{b}\right)$

$= \frac{a^3}{b^3}$

47.

$$\frac{x^{12} \cdot y^{9}}{x^{0} \cdot y^{2}} = x^{12} \cdot y^{7}$$

→ 2 cancellation

$x^0 = 1$

$\frac{x^{12} \cdot y^{9}}{x^{0} \cdot y^{2}} = \frac{x^{12} \cdot y^{9}}{1 \cdot y^{2}}$

$= \frac{x^{12} \cdot y^{9}}{y^{2}}$

$= x^{12} \cdot y^{7}$

$\cdot$ = MULTIPLICATION

SAFEST FORMULATION

Sec 4.1

$(a \cdot b)^n = (a)^n \cdot (b)^n$

now see #67.

$(-5 \cdot n^7)^2$

$= (-5)^2 \cdot (n^7)^2$

$a = -5$
$b = n^7$

$(a \cdot b)^n = (a)^n \cdot (b)^n$ BEST FORM.

$(-5 \cdot n^7)^2 = (-5)^2 \cdot (n^7)^2 = 25 \cdot n^{14}$

25

$(-5) \cdot (-5) = \text{pos} = 5^2 = 25$

$= (5)(5) = 25$

4.1

(73.) $(2x^5)^3 \cdot (3 \cdot x^4)$

$= (2)^3 \cdot (x^5)^3 \cdot 3 \cdot x^4$

$= 8 \cdot x^{15} \cdot 3 \cdot x^4$

$24 \cdot x^{(15+4)} = 24 \cdot x^{19}$

$= 24x^{19}$

(77.) $\left(\frac{7}{6n}\right)^2 = \frac{(7)^2}{(6n)^2} = \frac{(7)(7)}{6^2 n^2} = \frac{49}{36n^2}$

$\left(\frac{a}{b}\right)^n = \frac{(a)^n}{(a)^n}$ EF

Sec 4.1