MATH 1 (F2017)
QUEST: SECTIONS 1.1 - 1.3

NAME: MAYO 32 pts

DIRECTIONS: SHOW ALL WORK. CIRCLE FINAL ANSWERS. PENCIL ONLY.

(1) IN THE EXPRESSION $3x^2 + 2x - 1$, HOW MANY TERMS ARE THERE? 3 (2)

(2) A BALLOON FILLED WITH HELIUM IS AT AN INITIAL HEIGHT OF 4 FEET AND AFTER IT IS RELEASED, RISES AT A RATE OF 2 FEET PER SECOND. WRITE AN EQUATION FOR H, THE HEIGHT OF THE BALLOON AFTER S SECONDS.

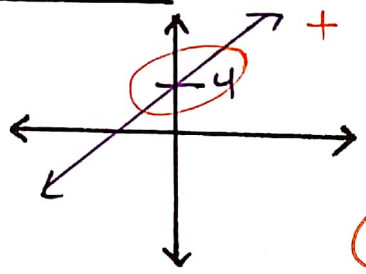
$H = 4 + 2S$ $H = 2S + 4$ (2)

(3) COMPLETE THE TABLE USING THE "RULE OF 4."

VERBAL:

THE SUM OF 4 AND 5 TIMES A NUMBER X.

GRAPHICAL:



(2)

ALGEBRAIC:

$Y = 4 + 5x$

$Y = 5x + 4$ (2)

NUMERICAL: (3 VALUES)

x	y
0	4
1	9
2	14
3	19
4	24

(2)

(10)

1) SOLVE EACH EQUATION. SHOW WORK. CIRCLE FINAL ANSWERS.

(A) $3x + 2 = 20$

$-2 \quad -2$

$\frac{3x}{3} = \frac{18}{3}$

$x = 6$ (2)

(B) $4(y+1) = 40$

$4y + 4 = 40$

$-4 \quad -4$

$\frac{4y}{4} = \frac{36}{4}$

$y = 9$ (2)

(C) $-7(2b-4) = 5(-2b+6)$

$-14b + 28 = -10b + 30$

$+10b \qquad +10b$

$-4b + 28 = 30$

$-28 \quad -28$

$\frac{-4b}{-4} = \frac{2}{-4}$

$b = -\frac{1}{2}$ (3)

(D) $\frac{w-4}{5} = -3$

$5\left(\frac{w-4}{5} = -3\right)$

$w - 4 = -15$

$+4 \quad +4$

$w = -11$ (2)

(9)

(5) THE EQUATION $4(y+1) = 40$ IS SOLVED BELOW. FOR EACH STEP, GIVE A JUSTIFICATION.

$4(y+1) = 40$ — GIVEN

$4y + 4 = 40$ — DIST. P.

$4y = 36$ — SUBT P. ADD $-\frac{1}{2}$

$y = 9$ — DIV. P.

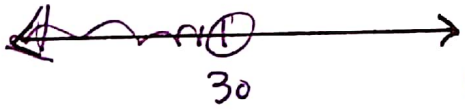
(4)

(6) SOLVE AND GRAPH EACH INEQUALITY:

(A) $22 > m - 8$

$+8 \quad +8$

$30 > m$ (2)



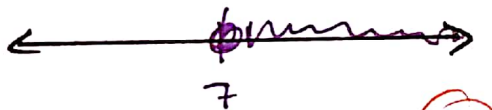
(1)

(B) $6h - 10 \geq 32$

$+10 \quad +10$

$\frac{6h}{6} \geq \frac{42}{6}$ (2)

$h \geq 7$



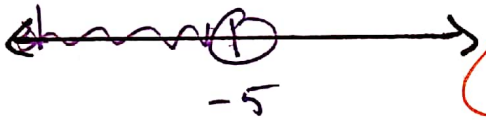
(1)

(C) $-11y - 13 > 42$

$+13 \quad +13$

$\frac{-11y}{-11} > \frac{55}{-11}$ (2)

$y < -5$



(1)

BONUS: WHO IS THE CURRENT U.S. SECRETARY OF DEFENSE?

JAMES MATTIS. (+2)

"MAD DOG" (+1)

(13)