

CHAP 1 REVIEW (F2017)

- ① GIVEN THE EXPRESSION $3x^2 + 2x + x - 1$, HOW MANY TERMS DOES IT HAVE?
- ② A REPAIR COSTS A FLAT FEE OF \$90 AND AN HOURLY CHARGE OF \$30/HOUR. SET UP A FUNCTION $C(h)$ WHERE C IS COST IN \$ AND h IS HOW LONG REPAIR TOOK IN HOURS.
- ③ FOR NUMBER ② ABOVE, ASSUMING THE REPAIR TAKES BETWEEN 1 AND 10 HOURS,
- Ⓐ WHAT IS THE DOMAIN?
 - Ⓑ WHAT IS THE RANGE?
 - Ⓒ WHAT DOES $C(3)$ REPRESENT?
 - Ⓓ CALCULATE $C(3)$. SHOW WORK.
 - Ⓔ IF YOU WERE CHARGED \$210.00, HOW MANY HOURS DID THE REPAIR TAKE? SHOW WORK.

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

<u>SYMBOLIC</u> : $y = 2 - 3x$	<u>VERBAL</u> :
<u>GRAPHICAL</u> :	<u>NUMERICAL</u> :

5) SOLVE EACH OF THE FOLLOWING. SHOW WORK.

A) $2x + 5 = 13$

B) $\frac{15}{x} + 2 = 5$

C) $4(x + 1) = 40$

D) $2 + 5x = 3x - 6$

E) $\frac{7}{3}x - 8 = 111$

F) $\frac{1}{5}(10 - 20x) = -14$

6 SOLVE + GRAPH EACH INEQUALITY.

(A) $-11x - 13 > 42$

(B) $9x - 5(x - 5) \leq 4(x - 3)$

(C) $4x - 17 < 6x + 25$

(D) $\frac{w+3}{2} < -8$

(E) $5x - 3(x - 6) \geq 0$

7 MARIO MAKES A 90 ON HIS FIRST TEST AND AN 88 ON HIS SECOND TEST. WHAT MUST HE MAKE ON HIS THIRD TEST TO HAVE AN AVERAGE GREATER THAN 91? SHOW WORK.

8 THE LENGTH OF A RECTANGLE IS ONE INCH LESS THAN TWICE THE WIDTH. WHAT IS THE MAXIMUM WIDTH WHEN THE PERIMETER OF THE RECTANGLE IS ^{NO} MORE THAN 70 INCHES? SHOW WORK.

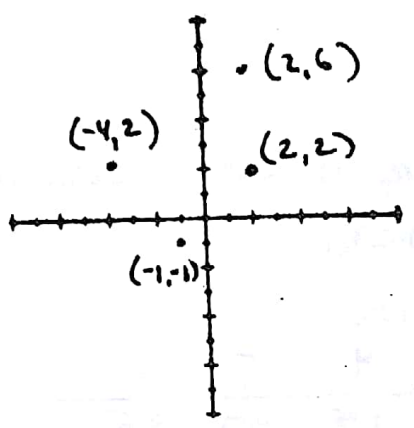
9 (A) SOLVE $S = 4\pi r^2$ FOR r . SHOW WORK.

(B) SOLVE $xy + w = 9$ FOR y . SHOW WORK

(C) SOLVE $x^3 + 8 = y$ FOR x . SHOW WORK.

10 FOR EACH OF THE FOLLOWING, GIVE:
 (A) DOMAIN, (B) RANGE, (C) FUNCTION?, (D) DISCRETE/CONT?

1

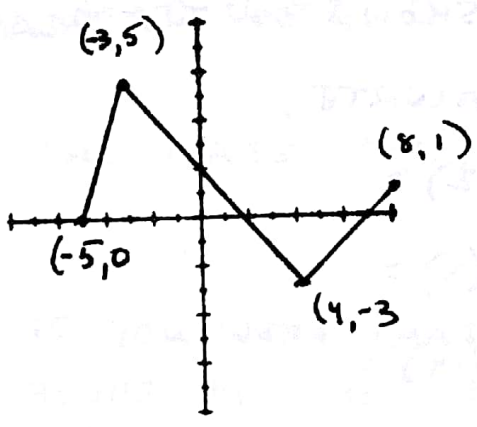


- (A) D:
- (B) R:
- (C) FUNCTION?
- (D) D/C?

2 $\{(3, -5), (7, 8), (6, -5), (4, 4)\}$

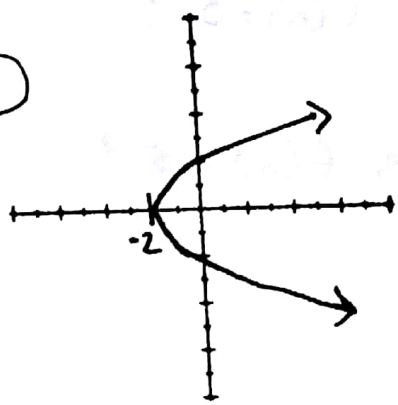
- (A) D:
- (B) R:
- (C) FUNCTION?
- (D) D/C?

3



- (A) D:
- (B) R:
- (C) FUNCTION?
- (D) D/C?

4



- (A) D:
- (B) R:
- (C) FUNCTION?
- (D) D/C?

(11) GIVEN $f(x) = 3x + 5$

(A) FIND $f(0)$

(B) FIND $f(-1)$

(C) FIND $f(-3)$

(D) WHEN IS $f(x) = 10$?

(12) GIVEN THE TABLE OF VALUES FOR TIME IN SECONDS AND HEIGHT IN FEET OF AN OBJECT.

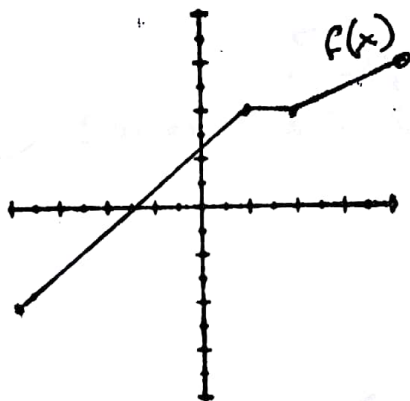
TIME (SEC)	0	1	2	3	4	5	6
HT (FT)	5	10	15	20	25	30	35

(A) WHAT DOES $H(2)$ MEAN?

(B) WHAT IS $H(2)$?

(C) WHEN WILL THE HEIGHT BE 22 FT?

(13) THE FUNCTION $y = f(x)$ IS SHOWN ON THE GRAPH BELOW.



(A) EVALUATE:

$$f(2) =$$

$$f(3) =$$

$$f(-4) =$$

(B) WHEN IS $f(x) = 0$?

(C) WHEN IS $f(x) = 5$?