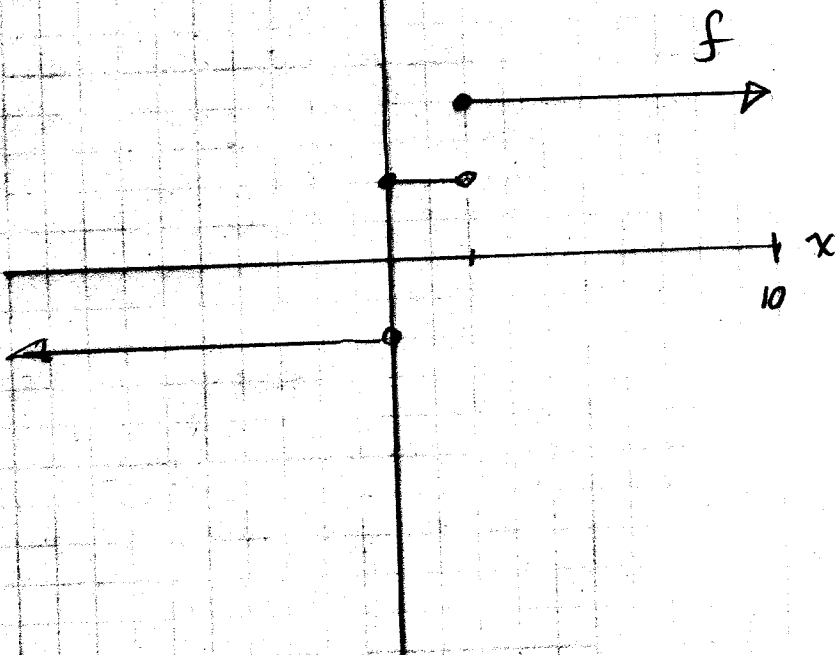


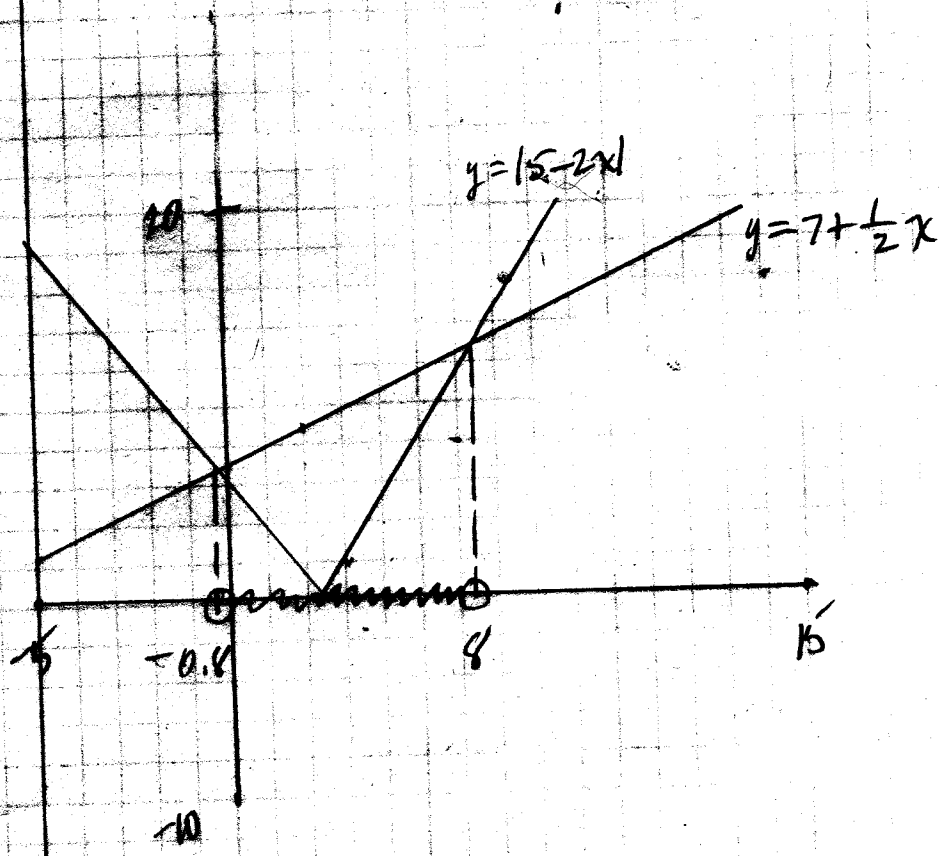
4A

35

5pts  
①



6pts  
②



$$|15 - 2x| < 7 + \frac{1}{2}x$$

5015

3)  $3 + 7|x-5| > 5|x-5| + 11$

$$7|x-5| - 5|x-5| > 11 - 3$$

$$2|x-5| > 8$$

$$|x-5| > 4$$

$$x-5 < -4 \text{ or } x-5 > 4$$

$$x < 1$$

$$x > 9$$

5013

34)  $\left| x - \frac{x+2}{7} \right| < 2$

$$-2 < x - \frac{x+2}{7} < 2$$

$$-14 < 7x - 7\left(\frac{x+2}{7}\right) < 14$$

$$-14 < 7x - (x+2) < 14$$

$$-14 < 7x - x - 2 < 14$$

$$-14 < 6x - 2 < 14$$

$$-12 < 6x < 16$$

$$-2 < x < \frac{16}{6}$$

$$-2 < x < \frac{8}{3}$$

10/2/15

$$\begin{aligned}
 f(x) &= x^2 - 8x - 10 \\
 &= x^2 - 8x + 16 - 16 - 10 \\
 &= (x-4)^2 - 26
 \end{aligned}$$

To find y-int, let  $x=0$ .

$$\begin{aligned}
 f(0) &= (0)^2 - 8(0) - 10 \\
 &= -10
 \end{aligned}$$

To find x-int, let  $y=0$ .

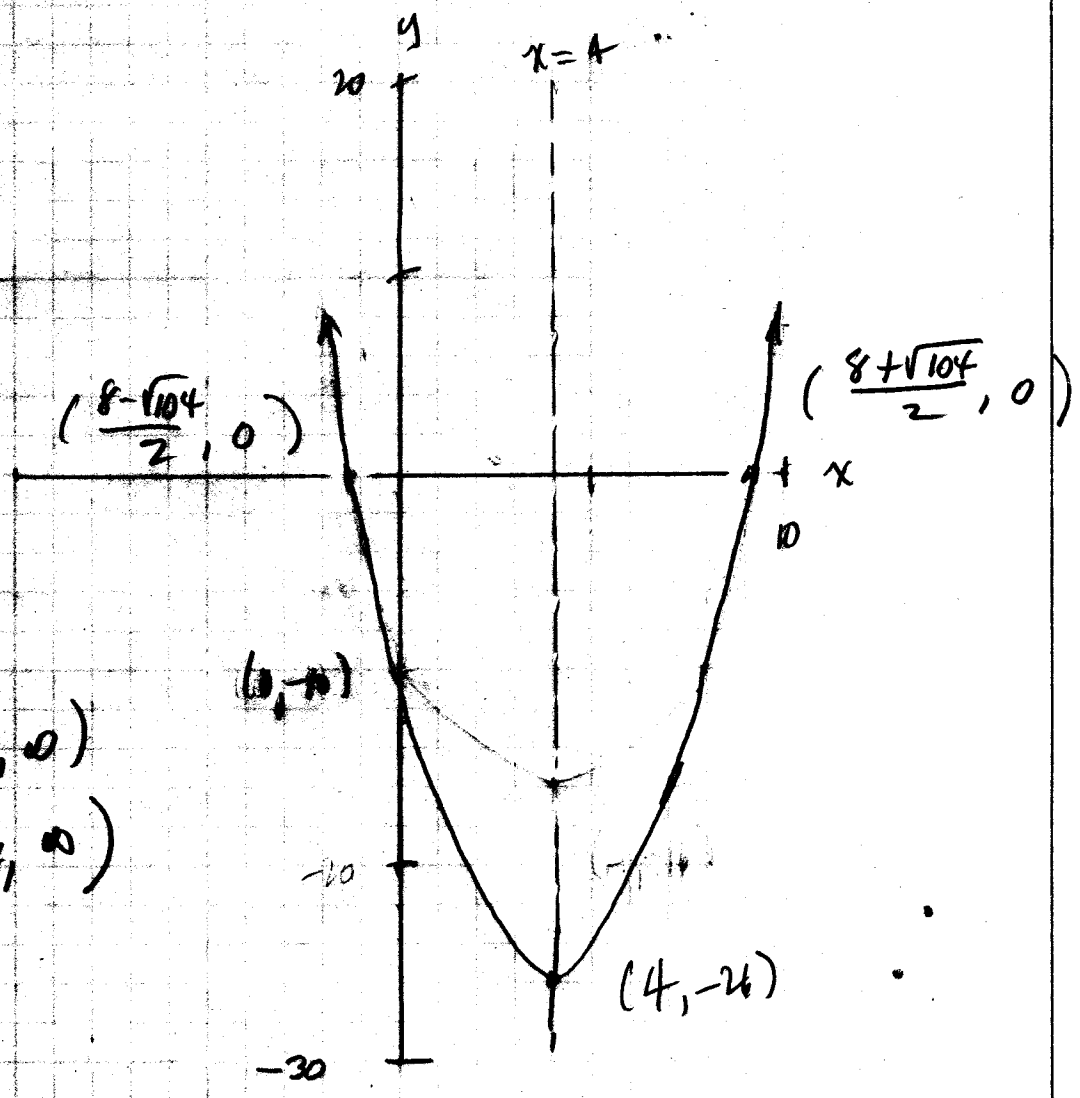
$$0 = x^2 - 8x - 10$$

$$x = \frac{-(-8) \pm \sqrt{(-8)^2 - 4(1)(-10)}}{2(1)}$$

$$x = \frac{8 \pm \sqrt{64 + 40}}{2}$$

$$x = \frac{8 \pm \sqrt{104}}{2}$$

$$x \approx -1.1, 9.1$$



$$A = (-0.1, 0)$$

$$B = [-26, 0]$$

5pts

⑤ Let  $x$  and  $y$  represent numbers.

$$x - y = 4 \quad (1)$$

$$S = x^2 + y^2 \quad (2)$$

Solve (1) for  $x$ :

$$x = y + 4 \quad (3)$$

Sub (3) in (2):

$$S = (y + 4)^2 + y^2$$

$$S = y^2 + 8y + 16 + y^2$$

$$S = 2y^2 + 8y + 16$$

To find vertex,

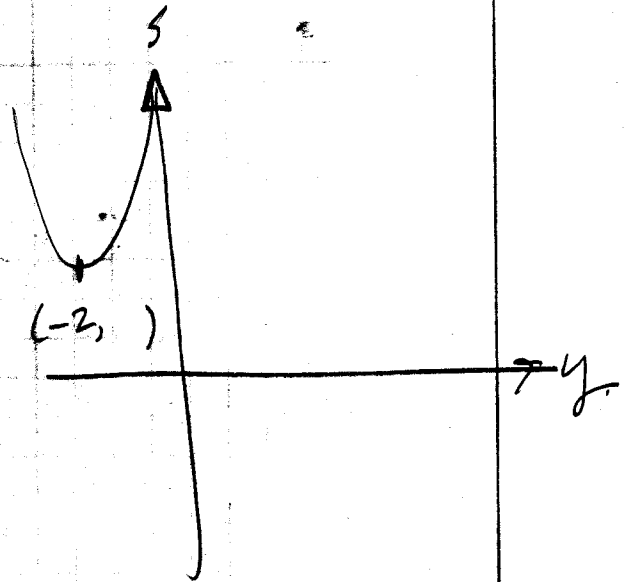
$$y_v = -\frac{b}{2a}$$

$$y_v = \frac{-8}{2(2)}$$

$$y_v = -2$$

To find  $x$ , sub  $y = -2$  in (3)

$$x = -2 + 4 = 2$$



Thus, the two numbers are:

$$x = 2$$

$$y = -2$$

**SUBJECTIVE SCORE  
INSTRUCTOR USE ONLY**

100	90	80	70	60
50	40	30	20	10
9	8	7	6	5
4	3	2	1	0

(T) (F) KEY

100 90 80 70 60  
50 40 30 20 10  
9 8 7 6 5  
4 3 2 1 0

	(T)	(F)	KEY
1	A	B	C
2	A	B	C
3	A	B	C
4	A	B	C
5	A	B	C
6	A	B	C
7	A	B	C
8	A	B	C
9	A	B	C
10	A	B	C
11	A	B	C
12	A	B	C
13	A	B	C
14	A	B	C
15	A	B	C
16	A	B	C
17	A	B	C
18	A	B	C
19	A	B	C
20	A	B	C
21	A	B	C
22	A	B	C
23	A	B	C
24	A	B	C
25	A	B	C
26	A	B	C
27	A	B	C
28	A	B	C
29	A	B	C
30	A	B	C
31	A	B	C
32	A	B	C
33	A	B	C
34	A	B	C
35	A	B	C
36	A	B	C
37	A	B	C
38	A	B	C
39	A	B	C
40	A	B	C
41	A	B	C
42	A	B	C
43	A	B	C
44	A	B	C
45	A	B	C
46	A	B	C
47	A	B	C
48	A	B	C
49	A	B	C
50	A	B	C

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FEED THIS DIRECTION

2

06 07 M12 0306 999 12 11 10 9 8 7 6 5 4 3

**PART 1**

• MAKE DARK MARKS  
• ERASE COMPLETELY  
• TO CHANGE

USE NO. 2 PENCIL ONLY

**IMPORTANT**

TO USE SUBJECTIVE  
SCORE FEATURE:

- Mark total possible subjective points
- Only one mark per line on key
- 163 points maximum

EXAMPLE OF STUDENT SCORE:  
100 90 80 70 60  
50 40 30 20 10  
9 8 7 6 5  
4 3 2 1 0

SCANTRON FORM 101

USE ON  
SCORING ONLY

4A

TEST RECORD	
PART 1	
PART 2	
TOTAL	

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