Name Answer Key Class_____ Date_____

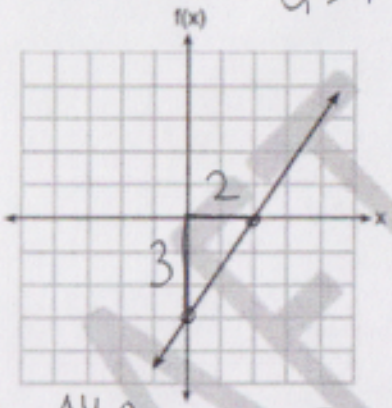
8TH GRADE MATHEMATICS TEST PREP

SHORT ANSWER/CONSTRUCTED RESPONSE

QUESTION #21

The three different linear functions below are represented in three different ways, as shown.

2 > 1.5



x	f(x)
-3	-9
3	3

+3 (3, 6) (3, 9) +6

$\frac{\Delta y}{\Delta x}$ $\frac{6}{3}$ $\boxed{m=2}$

(I)

$\frac{\Delta y}{\Delta x}$ $\frac{3}{2}$ (II) m=1.5

$2y + \cancel{3} = 3x$
$\cancel{-3} \quad -3$

$\frac{2y}{2} = \frac{3x}{2} - \frac{3}{2}$

$y = 1.5x - 1.5$

$m = 1.5$

(III)

Which function has the greatest rate of change? Does any pair of functions have the same rate of change? **Justify your answer.**

(I) greatest m=2, (II)+(III) Same rate m=1.5

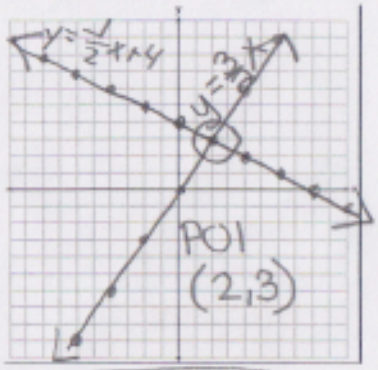
QUESTION # 22

Solve the system of equations graphically.

$y = \frac{3}{2}x$

$\frac{2y}{2} = \frac{-x+8}{2}$

$y = -\frac{1}{2}x + 4$



$\boxed{\text{P.O.I. } (2,3)}$

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8TH GRADE MATHEMATICS TEST PREP

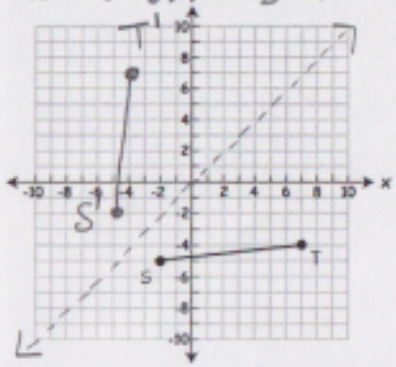
QUESTION #23

If ST is reflected across the line y = x, what is the new coordinate point of T'? T'(-4,7)

Rule (x,y) → (y,x)

S(-2,-5)

S'(-5,-2)



T(7,-4)

T'(-4,7)

QUESTION #24

Rotate trapezoid JKLM clockwise 180 degrees. Label trapezoid J'K'L'M'. What is the coordinate of J' (3,3)?

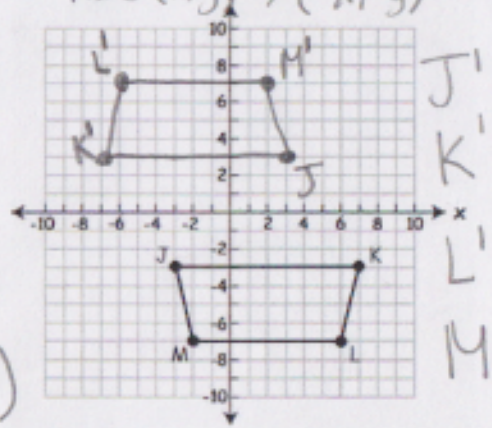
Rule (x,y) → (-x,-y)

J(-3,-3)

K(7,-3)

L(6,-7)

M(-2,-7)



J'(3,3)

K'(-7,3)

L'(6,7)

M'(2,7)