Name _Schlansky_

Mr. Schlansky

Partitions Practice

1. What are the coordinates of the point on the directed line segment from $M(-8,1)$ to $R(6,8)$ that partitions the segment into a ratio of 3 to 4?

$$\frac{\Delta x}{P} \qquad \frac{\Delta y}{P} \qquad 2, 1 \qquad \boxed{(-2,4)}$$

$$\frac{14}{7} \qquad \frac{7}{7}$$

2. Directed line segment TX has endpoints whose coordinates are $T(-6,8)$ and $X(9,-2)$. Determine the coordinates of point J that divides the segment in the ratio 2 to 3.

$$\frac{\Delta x}{P} \qquad \frac{\Delta y}{P} \qquad 3,2 \qquad \boxed{(0,4)}$$

$$\frac{15}{5} \qquad \frac{10}{5}$$

3. The coordinates of the endpoints of $\overline{PO}$ are $P(7,3)$ and $O(2,-7)$. Point E is on $\overline{PO}$. Determine and state the coordinates of point E, such that $\overline{PE}:\overline{EO}$ is 4:1.

$$\frac{\Delta x}{P} \qquad \frac{\Delta y}{P} \qquad 1,2 \qquad \boxed{(3,-5)}$$

$$\frac{5}{3} \qquad \frac{10}{5}$$

4. The endpoints of $\overline{DEF}$ are $D(4,-2)$ and $F(16,-10)$. Determine and state the coordinates of point E, if $\overline{DE}:\overline{EF}=3:1$.

$$\frac{\Delta x}{P} \qquad \frac{\Delta y}{P} \qquad \qquad \boxed{(13,-8)}$$

$$\frac{12}{4} \qquad \frac{8}{4}$$

$$3, 2$$

5. What are the coordinates of the point on the directed line segment from $H(-9,2)$ to $O(1,17)$ that partitions the segment into a ratio of 3 to 2?

$$\frac{\Delta x}{P} \quad \frac{\Delta y}{P}$$

$$\frac{10}{5} \quad \frac{15}{5}$$

$2,3 \quad \boxed{(-3,5)}$

6. Directed line segment JK has endpoints whose coordinates are $J(-1,3)$ and $K(13,10)$. Determine the coordinates of point O that divides the segment in the ratio 2 to 5.

$$\frac{\Delta x}{P} \quad \frac{\Delta y}{P} \quad \frac{14}{7} \quad \frac{7}{7} \quad \boxed{(3,5)}$$

$2,1$

7. What are the coordinates of the point on the directed line segment from $E(18,14)$ to $Z(-2,-2)$ that partitions the segment into a ratio of 1 to 3?
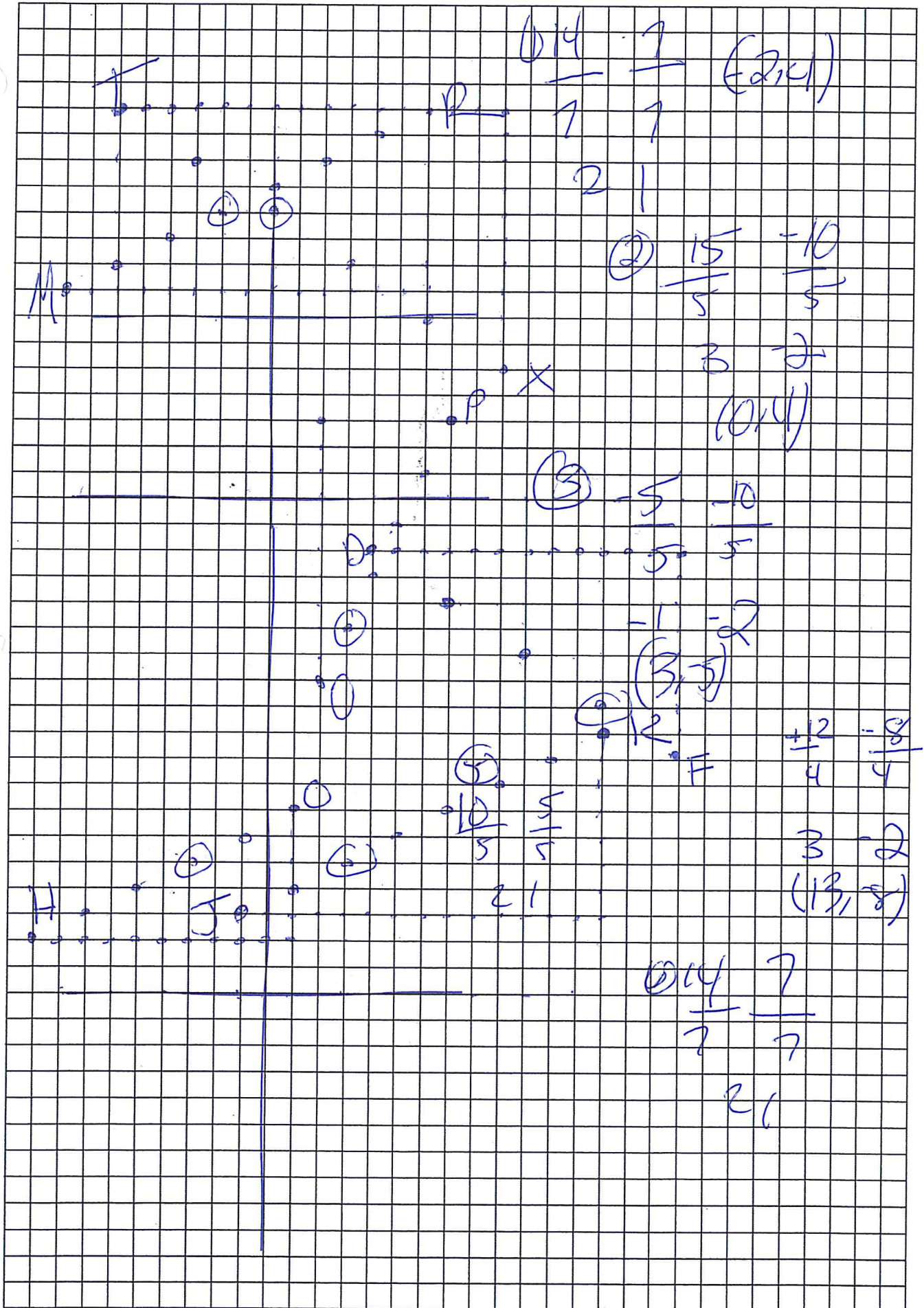
$$\frac{\Delta x}{P} \quad \frac{\Delta y}{P}$$

$$\frac{20}{4} \quad \frac{16}{4}$$

$5,4 \quad \boxed{(13,10)}$

8. Directed line segment MY has endpoints whose coordinates are $M(-3,5)$ and $Y(7,15)$. Determine the coordinates of point U that divides the segment in the ratio 2 to 3.

$$\frac{\Delta x}{P} \quad \frac{\Delta y}{P}$$

$\boxed{(1,9)}$

$$\frac{10}{5} \quad \frac{10}{5}$$

$2,2$

T

R

$(0)4$ 7

$\dfrac{7}{7}$ $\dfrac{7}{7}$ $(2,4)$

2 1

M

(2) $\dfrac{15}{5}$ $\dfrac{-10}{5}$

3 -2

P X

$(0,4)$

(3) $\dfrac{-5}{5}$ $\dfrac{-10}{5}$

D

$\dfrac{-1}{5}$ $\dfrac{-2}{5}$

$(3,3)$

$\dfrac{2}{5}$

F $\dfrac{+12}{4}$ $\dfrac{-8}{4}$

$\dfrac{10}{5}$ $\dfrac{5}{5}$

3 -2

$(13,8)$

H J 2 1

$(0)4$ 7

$\dfrac{7}{7}$ $\dfrac{7}{7}$

2 1