

MATH 100 - WORKSHEET 8 - PROBLEMS IN AFFINE PLANES

1. REAL PLANE

- (1) Find the intersection point for $y = 4x - 3$ and $y = 2x + 1$.
- (2) Find the intersection point for $y = x + 3$ and $y = 3x + 1$.
- (3) Find the intersection point for $y = -x + 2$ and $y = 2x + 5$.
- (4) Find the intersection point for $y = 4x - 1$ and $y = 4x + 3$.
- (5) Find the intersection point for $y = -2x + 7$ and $x = 2$.
- (6) Find the intersection point for $y = 2x + 1$ and $y = 7$.

2. COMPLEX PLANE

- (1) Find the intersection point for $y = ix + 1$ and $x = 2 + i$.
- (2) Find the intersection point for $y = ix + 2$ and $y = (1 + 2i)x + 1$.
- (3) Find the intersection point for $y = (2 + i)x + i$ and $y = (2 + i)x + (3 + 2i)$.

3. \mathbb{Z}_5 PLANE

- (1) Find the intersection point for $y = x + 1$ and $y = 2x + 3$.
- (2) Find the intersection point for $y = x + 2$ and $y = 3x + 1$.
- (3) Find the intersection point for $y = 4x + 2$ and $x = 2$.
- (4) Find the intersection point for $y = 4x + 2$ and $y = 0$.
- (5) Find the intersection point for $y = 2x + 2$ and $y = 2x + 4$.