2B

$$3\mathbb{Z} = \{3x \mid x \in \mathbb{Z}\} \quad (1)$$

$$\mathbb{Z}/3\mathbb{Z} = \mathbb{Z}/\sim \quad \text{where } x \sim y \text{ if and only iff } x - y \in 3\mathbb{Z}. \quad (2)$$

Those two equations were the first two parts of the problem. For the third part, the equivilence class [0] is $3\mathbb{Z}$, [1] is $1 + 3\mathbb{Z}$, and [2] is $2 + 3\mathbb{Z}$. These are the only three equivalence classes.

For the fourth part, we have addition and multiplication tables, where for shorthand, we have omitted all of the square brackets:

+	0	1	2
0	0	1	2
1	1	2	0
2	2	0	1

·	0	1	2
0	0	0	0
1	0	1	2
2	0	2	1

For the fifth part, note that since we know that $\mathbb{Z}/3\mathbb{Z}$ is a commutative ring, all we have to show is that multiplicative inverses exist and that there is a multiplicative identity to show that $\mathbb{Z}/3\mathbb{Z}$ is a field. The multiplicative identity is [1], and each nonzero element is its own multiplicative inverse, as you can see in the tables.