4. Given that $z_1 = 2 + 3i$ and $z_2 = p - 6i$, $p \in \mathbb{R}$, find:

(a) $z_1 \overline{z_2}$;

(b) the value of $p$ such that $z_1 \overline{z_2}$ is a real number.

Answers

(a) $(2p - 18) + (3p + 12)i$ $\quad (b) p = -4$