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

(a) $z_1 \bar{z}_2$; **2**

(b) the value of p such that $z_1 \bar{z}_2$ is a real number. **1**

Answers:

(a) $(2p - 18) + (3p + 12)i$

(b) -4