Problem

At first, check if the transformation is linear

find it's kernel and image

is it an isomorphism or not? why?

$$T(f(t)) = \int_{-2}^{3} f(t)\, \mathrm{d}t \quad \text{from} \quad P_2 \text{ to } \mathbb{R}$$

Problem

Show examples of isomorphisms from P_3 to $\mathbb{R}^3$

(just 2 or 3 examples)