15. $T\colon \mathbb{R}^n \to \mathbb{R}^2;\ T\begin{pmatrix} x_1 \\ x_2 \\ \vdots \\ x_n \end{pmatrix} = \begin{pmatrix} |x_4| \\ x_1 \end{pmatrix}$

16. $T\colon \mathbb{R} \to \mathbb{R}^n;\ T(x) = \begin{pmatrix} x \\ x \\ \vdots \\ x \end{pmatrix}$

17. $T\colon \mathbb{R}^4 \to \mathbb{R}^2;\ T\begin{pmatrix} x \\ y \\ z \\ w \end{pmatrix} = \begin{pmatrix} x+z \\ y+w \end{pmatrix}$

18. $T\colon \mathbb{R}^2 \to \mathbb{M}_{22};\ T\begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} x+y & x-y \\ y-x & 2x \end{pmatrix}$

19. $T\colon M_{nn} \to M_{nn};\ T(A) = AB$, donde B es una matriz fija de $n \times n$

20. $T\colon M_{nn} \to M_{nn};\ T(A) = A^{\mathsf{T}}A$

21. $T\colon \mathbb{M}_{pq} \to \mathbb{M}_{pq};\ T(A) = A^{\mathsf{T}}$

22. $T\colon \mathbb{M}_{mn} \to \mathbb{M}_{qn};\ T(A) = BA$, donde B es una matriz fija de $q \times m$

23. $T\colon \mathbb{D}_n \to \mathbb{D}_n;\ T(A) = A + A'$, donde $\mathbb{D}_n$ es el conjunto de matrices diagonales de $n \times n$.

24. $T\colon D_5 \to \mathbb{R}^3;\ T(D) = \begin{pmatrix} d_{11} + 2d_{33} \\ d_{22} - 3d_{33} \\ d_{35} \end{pmatrix}$

25. $T\colon \mathbb{P}_1 \to \mathbb{P}_2;\ T(a_0 + a_1x) = a_1 + a_0x^2$

26. $T\colon \mathbb{P}_2 \to \mathbb{P}_2;\ T(a_0 + a_1x + a_2x^2) = a_0a_2x + a_1x^2$

27. $T\colon \mathbb{P}_2 \to \mathbb{M}_{22};\ T(a_0 + a_1x + a_2x^2) = \begin{pmatrix} a_2 + a_1 & a_2 - a_0 \\ a_0 - a_1 & 0 \end{pmatrix}$

28. $T\colon \mathbb{R}^2 \to \mathbb{P}_4;\ T\begin{pmatrix} a \\ b \end{pmatrix} = a + bx + (a-b)x^2 + (a+b)x^4$

29. $T\colon \mathbb{P}_2 \to \mathbb{P}_4;\ T(p(x)) = (p(x))^2$

30. $T\colon \mathbb{P}_2 \to \mathbb{P}_4;\ T(p(x)) = p'(x) + x^2p(x)$

31. $T\colon C[0, 1] \to C[0, 1];\ Tf(x) = f^2(x)$

32. $T\colon C[0, 1] \to C[0, 1];\ Tf(x) = f(x) + 1$

33. $T\colon C[0, 1] \to C[0, 1];\ Tf(x) = x^2f(x) + xf(x)$

34. $T\colon C[0, 1] \to \mathbb{R};\ Tf = \int_0^1 f(x)g(x)\,dx$, donde g es una función fija en $C[0, 1]$

35. $T\colon C^1(0, 1) \to C(0, 1);\ T(f(x)) = (x^2p(x))'$

36. $T\colon C[0, 1] \to C[1, 2];\ Tf(x) = f(x - 1)$

37. $T\colon C[0, 1] \to \mathbb{R};\ Tf = f\left(\frac{1}{2}\right)$

38. $T\colon C^1(0, 1) \to \mathbb{R};\ T(f) = f'\left(\frac{1}{3}\right)$

39. $T\colon \mathbb{M}_{nn} \to \mathbb{R};\ T(A) = \det A$

40. Sea $T\colon \mathbb{R}^2 \to \mathbb{R}^2$ dado por $T(x, y) = (-x, -y)$. Describa T geométricamente.