

QUIZ October 23, 2013

Clicker Instructions: A = True; B = False;
C = I don't know; D = No truth value
correct = 1pt; don't know = 0pt; wrong = 0pt

1. The following elements form a basis for \mathbb{R}^3 :

$$\begin{pmatrix} 1 \\ 0 \\ 0 \end{pmatrix}, \begin{pmatrix} 0 \\ 0 \\ 1 \end{pmatrix}, \begin{pmatrix} 1 \\ 0 \\ 1 \end{pmatrix}$$

2. The following elements form a basis for \mathbb{R}^3 :

$$\begin{pmatrix} 1 \\ 0 \\ 0 \end{pmatrix}, \begin{pmatrix} 0 \\ 1 \\ 0 \end{pmatrix}, \begin{pmatrix} 0 \\ 0 \\ 1 \end{pmatrix}$$

3. The following elements form a basis for \mathbb{R}^3 :

$$\begin{pmatrix} 1 \\ 0 \\ 0 \end{pmatrix}, \begin{pmatrix} 0 \\ 1 \\ 0 \end{pmatrix}$$

4. The following elements form a basis for \mathbb{P}_2 :

$$1, t^2, 1 + t^2.$$

5. The following elements form a basis for \mathbb{P}_2 :

$$1, t, t^2.$$

6. The following elements form a basis for \mathbb{P}_2 :

$$1, t.$$

7. The following elements form a basis for $C[0, 1]$
(the space of continuous functions on the interval
[0, 1]):

$$\sin(2t), \sin(t) \cos(t)$$

8. The following elements form a basis for $C[0, 1]$
(the space of continuous functions on the interval
[0, 1]):

$$\sin(t), \cos(t)$$