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 Solution

A)

1. Linear Transformation can be defined as a function that carries elements of the vector space

U(Domain) to the vector space V(Co-domain).

1. Rank of a Matrix can be defined as the dimension of the vector space generated by its columns.

B). 1 2 8

1. X = 4 7 6

 9 5 3

 |X| = 1 7 6 — 2 4 6 +8 4 7

 5 3 9 3 9 5

 |X| = 1(21 – 30) — 2(12 – 54) + 8(20 – 63)

 |X| = -9 + 84 -344

 X = -269 : Therefor X is a non-singular matrix

C)

1. T: X—Y

 **E. —–—– 2**

 **X** F. **—–—–** 4 **Y**

 **G. —–—– 6**

 **H. —–—– 8**

1. **—–—– 10**