

Find direction of maximum increase in $F(x,y,z)=x^2+y^2+2z$ at the point $(1, 1, 1)$.

- $0.58a_x+0.58a_y+0.58a_z$
- $0.58a_x+0.58a_y$
- $1.58a_x+1.58a_y$
- $1.58a_x+1.58a_y+1.58a_z$

If a signal in time domain is imaginary and odd then its corresponding Fourier transform is:

- real and even
- imaginary and even
- imaginary and odd
- real and odd

If wheel encoder is used with 4 ticks and R is 10CM. How many ticks do we need to drive approximately 10 meters?

- 80 ticks
- 33 ticks
- 64 ticks
- 16 ticks