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UNITS OF TIME

- SECOND
- MILLISECOND 10^{-3} SECOND
- MICROSECOND 10^{-6} "
- NANOSECOND 10^{-9} "
- PICOSECOND 10^{-12} "

UNITS OF FREQUENCY

- HERTZ = 1 cycle(s) / SECOND
- KILOHERTZ = 1000 "
- MEGAHERTZ = 1,000,000
- GIGAHERTZ = 1,000,000,000
- TERAHERTZ = 1,000,000,000,000

(2)

A TIMER OPERATES AT A CLOCK SPEED OF 20 HERTZ. HOW LONG DOES IT TAKE FOR ONE PULSE OF THE CLOCK IN

i) SECONDS

ii) MILLISECONDS

i) 20 HERTZ = 20 CYCLES / SECOND

1 CYCLE TAKES $\frac{1}{20}$ SECOND = 0.05 SECOND

ii) There are 1000 milliseconds in one second.
So multiply 0.05 x 1000 to express answer in milliseconds

$$0.05 \times 1000 = 50 \text{ milliseconds}$$

Do SAME CALCULATION FOR

- 200 HERTZ
- 50 MEGAHERTZ
- 2 GIGAHERTZ