

Untitled_0*

File Edit Connection View Window Help

New Open Save Connect Disconnect Clear Data Options View Hex Help

```

e = 23.827703 inches
Distance = 60.801723 cm
Distance = 46.226352 inches
Distance = 117.956893 cm
Distance = 46.621620 inches
Distance = 118.965515 cm
Distance = 46.429054 inches
Distance = 118.474136 cm
Distance = 7.479730 inches
Distance = 19.086206 cm
Distance = 6.844594 inches
Distance = 17.465517 cm
Distance = 7.006757 inches
Distance = 17.879310 cm
Distance = 6.760135 inches
Distance = 17.250000 cm
Distance = 8.050675 inches
Distance = 20.543104 cm
Distance = 46.182434 inches
Distance = 117.844825 cm
Distance = 46.847972 inches
Distance = 119.543106 cm
Distance = 21.402027 inches
Distance = 54.612068 cm
Distance = 21.337837 inches
Distance = |

```

} B.O.K

COM3 / 2400 8-N-1
Disconnected

☐ TX ☐ RTS ☐ DTR ☐ DCD
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- 1.
2. I must be confused as to what is being asked here... The ratio is 1:1 because they are both in cm. Attached is the output and the code.

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```

Distance = 58.715518 cm
Distance = 108.094825 cm
Distance = 108.094825 cm
Distance = 108.275863 cm
Distance = 108.275863 cm
Distance = 106.379310 cm
Distance = 106.379310 cm
Distance = 107.405174 cm
Distance = 107.405174 cm
Distance = 106.827583 cm
Distance = 106.827583 cm
Distance = 106.836204 cm
Distance = 106.836204 cm
Distance = 26.758621 cm
Distance = 26.758621 cm
Distance = 26.129310 cm
Distance = 26.129310 cm
Distance = 26.922412 cm
Distance = 26.922412 cm
Distance = 26.327587 cm
Distance = 26.327587 cm
Distance = 28.465517 cm
Distance = 28.465517 cm
Distance = 107.017242 cm
Distance = 107.017242 cm
Distance = 107.508621 cm
Distance = 107.508621 cm
Distance = 107.258621 cm
Distance = 107.258621 cm
Distance = |

```

} Boot

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main.c x pin_manager.h x tmr1.h x

```

27 uint16_t timeVal = 0;
28 while (1)
29 {
30     timeVal = TMR1_ReadTimer();
31     TRIG_SetHigh(); // Sends trigger pulse
32     __delay_us(20);
33     TRIG_SetLow();
34
35     TMR1GIF=0; //resets timer
36     TMR1_WriteTimer(0);
37     TMR1_StartSinglePulseAcquisition();
38     while(!TMR1GIF); // waits for return pulse to end
39     printf("Distance = %f cm\n", timeVal/116.0);
40     //printf("Distance = %f inches\n", TMR1_ReadTimer()/296.0); //math for inches
41     printf("Distance = %f cm\n", TMR1_ReadTimer()/116.0); //math for cm
42
43     __delay_ms(500); //rate of read

```

3. ReadTimer() is called within the printf statements.