## ENGR-1020

## VELDCITY

## $\mathrm{V}=\mathrm{d} / \mathrm{t}$; rearrange as needed, $\mathrm{d}=\mathrm{Vt}, \mathrm{t}=\mathrm{d} / \mathrm{V}$

Perform the following calculations. Show the work as demonstrated in class.
Use conversion factors from the time and length worksheets.

1. 30 ft in 6 s ; Calculate velocity in fps
2. 200 m in 600 s ; Calculate velocity in $\mathrm{m} / \mathrm{s}$
3. 400 ft in 60 s ; Calculate velocity in $\mathrm{ft} / \mathrm{min}$
4. 1200 m in 1 hr ; Calculate velocity in $\mathrm{m} / \mathrm{min}$
5. 176 ft in 2 s ; Calculate velocity in mph
6. 30 REV in 3 MIN ; Calculate velocity in RPM
7. 345 DEG in 0.75 MIN , Calculate velocity in RPM ( $360 \mathrm{DEG}=1$ REV)

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## VELロCITY

8. 16 RAD in 4 s ; Calculate velocity in RAD/s

9. 30 RAD in 5 s ; Calculate velocity in RPM ( 2 PI RAD $=6.283$ RAD $=1$ REV $=360$ DEG)
10. 60 MPH for 1 hr ; Calculate distance in miles (mi)
11. 50 MPH for 2 hr ; Calculate distance in ft
12. 300 ft at $10 \mathrm{FPS}(\mathrm{ft} / \mathrm{s})$; Calculate time in s
13. 700 m at 2 FPS; Calculate time in min
14. 600 RPM; Calculate velocity in rad/s
