## Equation Finder

| Equation | D | $\mathrm{v}_{\mathrm{i}}$ | $\mathrm{v}_{\mathrm{f}}$ | a | t |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{D}=\frac{\mathrm{v}_{\mathrm{i}}+\mathrm{v}_{\mathrm{f}}}{2} \mathrm{t}$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| $\mathrm{v}_{\mathrm{f}}=\mathrm{v}_{\mathrm{i}}+\mathrm{at}$ |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| $\mathrm{D}=\mathrm{v}_{\mathrm{i}} \mathrm{t}+\frac{1}{2} \mathrm{at}^{2}$ | $\checkmark$ | $\checkmark$ |  | $\checkmark$ | $\checkmark$ |
| $\mathrm{v}_{\mathrm{f}}{ }^{2}=\mathrm{v}_{\mathrm{i}}{ }^{2}+2 \mathrm{aD}$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |

To use your Equation Finder:

1. Identify three "givens" in a problem.
2. Identify unknown in a problem.
3. Find an equation that has all three "givens" and one unknown.
4. Solve the equation you found for unknown.
5. Insert "givens" into equation and find value for unknown.

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