# Verbal Descriptions to Direct-Variation Equations y = kx

## Variable and Meaning Template

Two-column template for defining variables in words before writing y = kx.

| Variable | Meaning |
| --- | --- |
| y | dependent quantity (in words) |
| x | independent quantity (in words) |
| k | constant ratio y/x (with units) |

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## Direct-Variation Translation Flowchart

Six-step flowchart: identify variables, write y = kx, substitute known values, solve for k, write final equation, answer follow-up.

| Step | Action |
|---|---|
| 1 | Identify the two related quantities. |
| 2 | Assign y (dependent) and x (independent). |
| 3 | Write the general equation y = kx. |
| 4 | Substitute a known pair and solve for k. |
| 5 | Rewrite the equation with the numerical k. |
| 6 | Use the equation to answer the follow-up. |