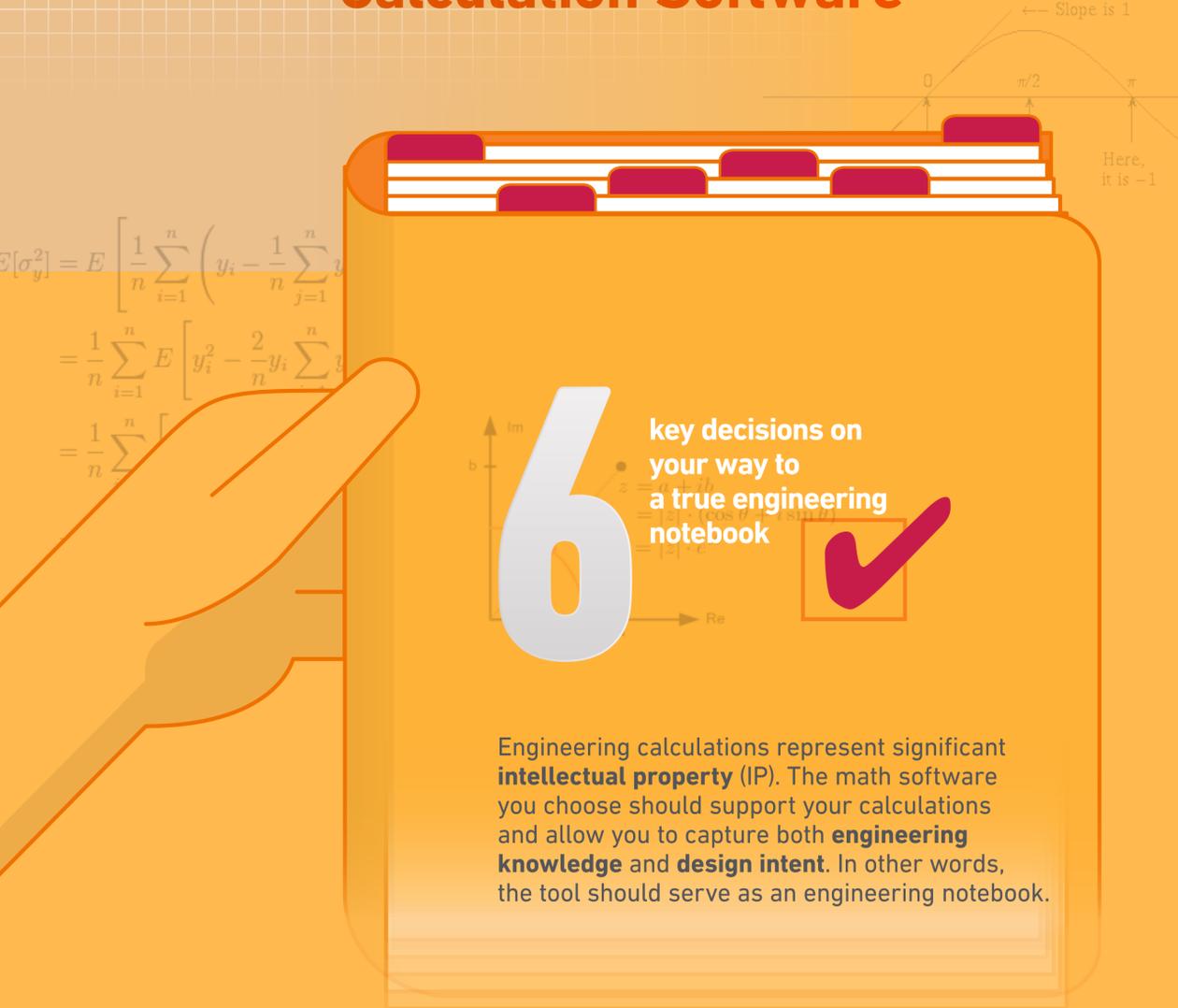


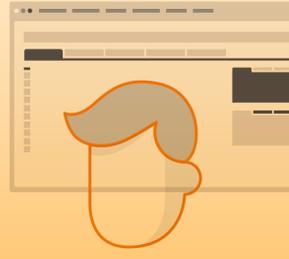
Choosing Mathematical Calculation Software



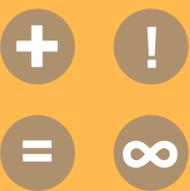
Below are six key decisions to make as you evaluate options.

1 User Interface

Any software, especially one that is performing calculations, has a learning curve. Look for a fairly intuitive user interface both to minimize the time you spend mastering the tool and to enhance ease-of-use. If you're not comfortable with the software, you won't use it.



2 Calculation Support



Engineering rests on a foundation of math. The software should handle linear algebra, trigonometry and calculus, and do both live numeric and symbolic math. Make sure the tool has the equations and functions you need.

3 Natural Math Notation

Work in the notation you — and everyone else — are used to. Natural math notation allows reviewers to follow, validate, and share your work.

$$v = \sqrt{\frac{T}{A} \cdot \frac{1}{2p}}$$

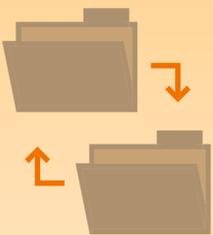
45 lbs
psi → Pa
lbf → N 765.23 4/7
lbs → kg
W → J 278/43

4 Units Conversion

Managing unit conversion and consistency can present a challenge. Make sure the tool you choose does units conversion automatically and alerts you to mistakes.

5 Comprehensive Documentation

You should be able to present your live equations with plots, math, text, and images in one worksheet. Your design intent will be that much harder to manage if you can't.



6 Data Input/Output

Can you move data back and forth from file types such .txt, .csv, and .xlsx? Integration means less work for you and real-time calculation updates.

- 1 User Interface
- 2 Calculation Support
- 3 Natural Math Notation
- 4 Units Conversion
- 5 Comprehensive Documentation
- 6 Data Input/Output



With **PTC Mathcad**, your text, interactive math calculations, graphs, and images fit in one worksheet that **everybody can read**. Such clear and lucid calculations lead to **more productive design and review cycles** – and IP all the more valuable because it can be found, **understood** and reused.

For more information check out the engineering notebook [webinar replay](#).