Math Diversion 743

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Thanksgiving isn't thanksgiving until
you've said thanks.
— Pastor Price

The problem is found at:

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Source: https://www.youtube.com/shorts/-iiY2bqn9Wo
Title: This impossible SAT question ruins perfect scores
 Presenter: yoursatcoach
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1 Problem

If AB is parallel to ED, what is angle CAB?

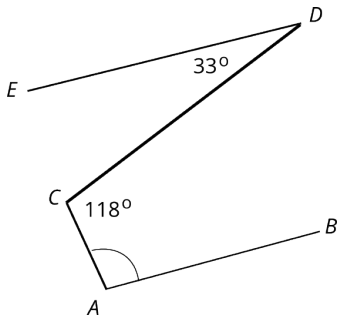

Figure 1. I'm thinking the Alternate Interior Angles Theorem for one. Maybe the Exterior Angle Theorem for another.

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2 Solution

Let's redraw Fig. 1 according to the rules of geometry, to get Fig. 2.

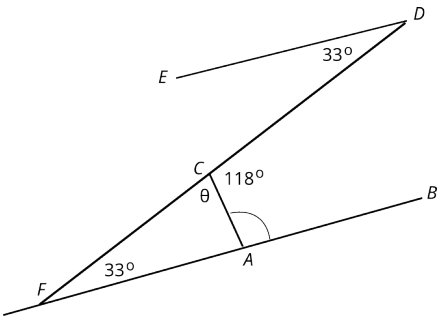

Figure 2. Line segments CD and AB are extended until they meet at F. From the Alternate Interior Angles Theorem, the angle at F equals the angle at D.

And, we know that θ is supplementary to $118°$, which makes it $62°$. From the Exterior Angle Theorem,

$$\angle CAB = 33° + 62° = 95° . \tag{1}$$