

It's A Set Up! – THE 16 CHALLENGES

Using the smallest number of units you can, create a **legal chess position** with **White to move** in which...

1. White has exactly **five** ways to **mate in one**.
2. White has exactly **seven** ways to **mate in one**.
3. White has exactly **one** way to **mate in one**, and it's by **promoting to a Knight** (with the promotion move being a Pawn advance, rather than a capture).
4. White has exactly **one** way to **mate in one**, and it's by playing **O-O-O#**. (You can assume that the White Rook on a1 and the White King on e1 haven't moved.)
5. White has exactly **one** way to **mate in one**, and it's by playing **Nd8#**, even though **Black's King stands on a corner square** (a1, a8, h1, or h8).
6. White has exactly **three legal moves**, all of which are **mate in one**.
7. White has **fifteen or more legal moves**, all of which are **mate in one**.
8. White has exactly **one** way to **mate in one**, with all other legal moves placing Black in immediate **stalemate**.

9. White has **no legal moves** (i.e. White is stalemated) despite White having **at least 20 'points' of material** (where Q=9, R=5, B=3, N=3, P=1, and the King isn't counted).
10. White has exactly **five units** (including the King), and each White unit has exactly **five legal moves** – moreover, if the position were "Black to move" instead, the **Black King** would also have exactly **five legal moves**. (Note: The position must be legal with White to move and with Black to move, so neither King can be in check.)
11. White has exactly **twelve legal moves**, all of which are **captures**.
12. White still has **all sixteen original White units**, and each White unit has exactly **one legal move** (thus, White has sixteen legal moves overall).
13. White has **no mate in one**, but if **any White unit (excluding the King) is removed**, White does have **mate in one**. (Note: The position is invalid if any of the possible unit removals would place Black in check.)
14. White has exactly **nine units** (including the King) and can **mate in one** even if Black **removes any seven of White's non-King units before White moves**. (Note: The position is invalid if any of the possible removals would place Black in check.)
15. It can be **deduced from the position alone** that Black's previous move must have been **K×h8**.
16. White is **in check** and has exactly **six legal moves** – **none of these moves is a capture**, and **all of them are mate in one**.
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