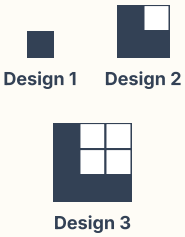
ZiloAcademy

✨ Grade 7 Maths — Patterns & Sequences ✨

Name: Demo Grade 7 **Date:** 26/11/2026

1



Nathan is making a growing tile pattern, shown as Design 1, 2 and 3. If the pattern continues in the same way, how many filled tiles will there be in Design 12?

2

A sequence begins: 14, 12, 10, 8. Each term changes by the same amount. What is the next term?

3

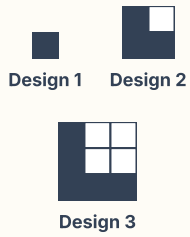
A sequence begins: 13, 19, 24, 28, 31. Each gap between terms is smaller than the last by the same amount. If this pattern continues, what is the 7th number in the sequence?

4

A sequence begins: 17, 24, 30, 35, 39. Each gap between terms is smaller than the last by the same amount. If this pattern continues, what is the 7th number in the sequence?

5. A sequence begins: 10, 20, 28, 34, 38. Each gap between terms is smaller than the last by the same amount. If this pattern continues, what is the 7th number in the sequence?

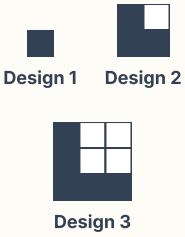
6. A sequence begins: 6, 13, 18, 21, 22. Each gap between terms is smaller than the last by the same amount. If this pattern continues, what is the 7th number in the sequence?

7. 

Nathan is making a growing tile pattern, shown as Design 1, 2 and 3. If the pattern continues in the same way, how many filled tiles will there be in Design 13?

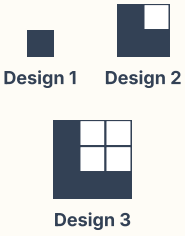
8. A sequence begins: 6, 10, 14, 18. Each term changes by the same amount. What is the next term?

9



Nathan is making a growing tile pattern, shown as Design 1, 2 and 3. If the pattern continues in the same way, how many filled tiles will there be in Design 15?

10



Nathan is making a growing tile pattern, shown as Design 1, 2 and 3. If the pattern continues in the same way, how many filled tiles will there be in Design 14?