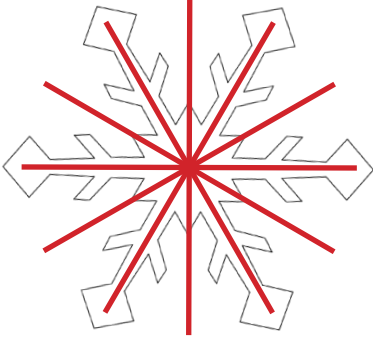


Snefnug

1 Se på snefnug med et spejl i hånden

Snefnug har seks spejlingsakser.

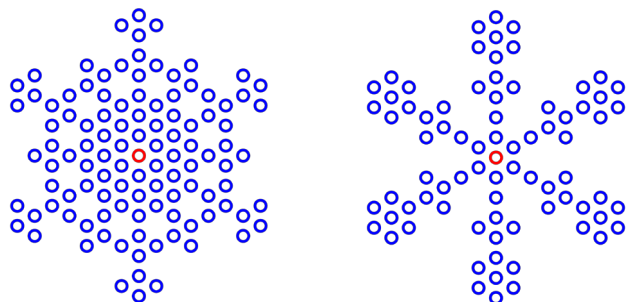


Prøv at placere et spejl på de seks spejlingsakser på hver af snefnuggene nedenfor. Hvilke af snefnuggene er ikke helt symmetriske?



2 Byg eller tegn et snefnug

Man kan bygge snefnug på en sekskantet perleplade eller tegne perlesnefnuggene på isometrisk prik-papir. Husk at sørge for, at snefnugget får seks spejlingsakser. Prøv at bygge eller tegne et af disse snefnug.

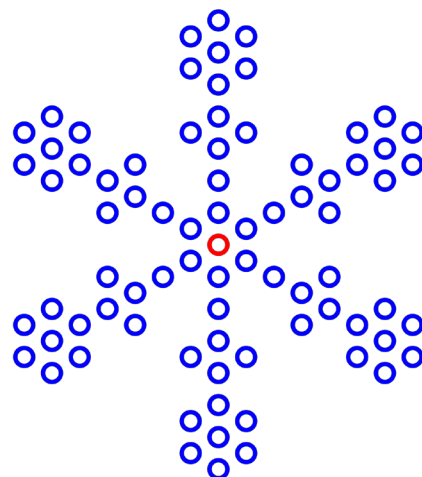
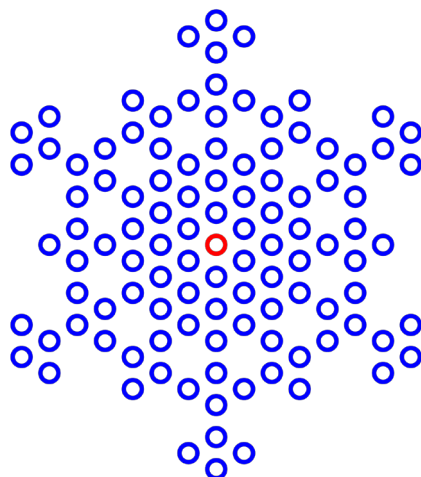
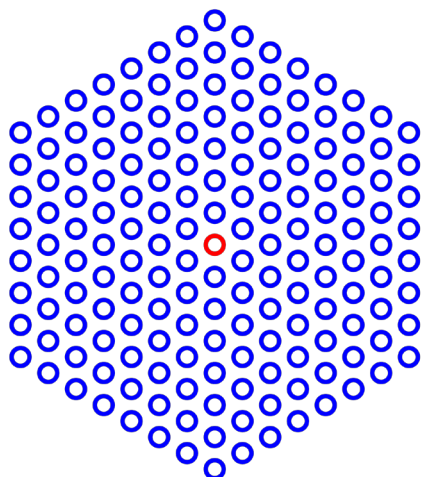
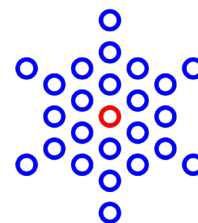
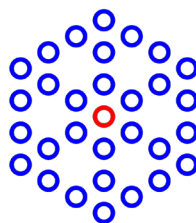
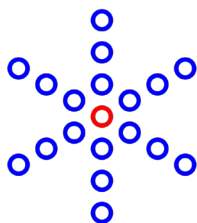
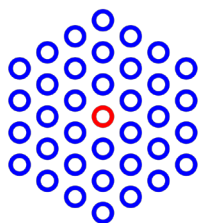


3 Design dit eget snefnug

Byg dit eget snefnug på en sekskantet perleplade, eller tegn et snefnug på isometrisk prik-papir. Husk snefnugget skal have seks spejlingsakser.

4 Hvor mange perler er der?

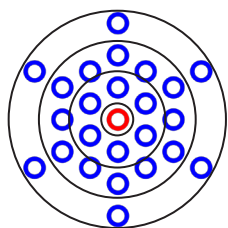
Hvor mange perler er der i hver af disse sekskanter og snefnug?



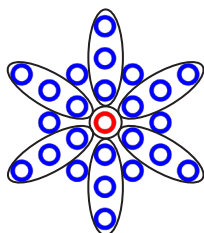
5 Lav regnestykker, der giver antallet af perler

Man kan regne sig frem til antallet af perler, for eksempel med disse regnestykke:

$$1 + 6 + 12 + 6 = 25$$

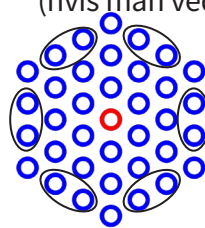


$$1 + 3 \cdot 6 + 6 = 25$$

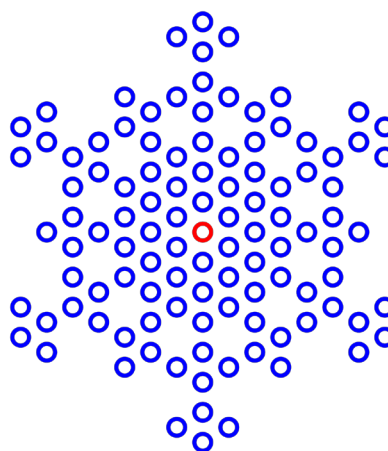
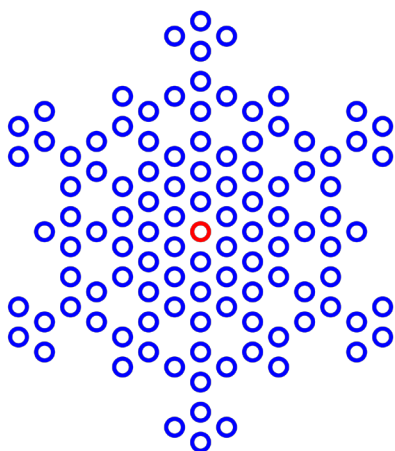


$$37 - 6 \cdot 2 = 25$$

(hvis man ved, at der er 37 i hele sekskanten)



Lav mindst to forskellige regnestykker, der viser, hvor mange perler der er i dette snefnug:



6 Lav snefnug med GeoGebra

Åben GeoGebra-filen, som kan bruges til at tegne snefnug ved at fjerne nogle prikker. Lav mindst to forskellige snefnug og udregn eller tæl hvor mange perler, der skal bruges til jeres snefnug.

Link til lille perleplade: <https://www.geogebra.org/m/ptjbveyx>





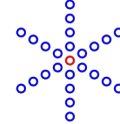
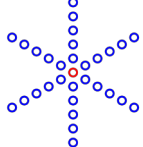
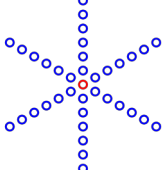
Link til stor perleplade: <https://www.geogebra.org/m/m3h4w86e>

Snefnug 1:

Snefnug 2:





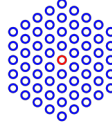
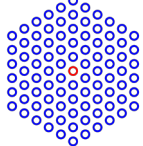
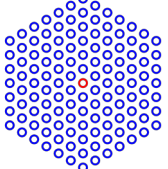
7 Hvordan vokser snefnuggene?

Er der et system i, hvordan de forskellige snefnug vokser? Tæl antal perler i hvert af snefnuggene. Find bagefter forskellene mellem antal perler i snefnuggene.

Snefnug							
Perler i alt	1	7					
Forskel		$7 - 1 = 6$					

Kan du regne ud, hvor mange perler der er i snefnug nr. 10?

Snefnug uden huller:





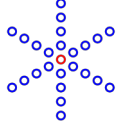
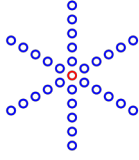
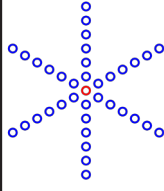
Snefnug							
Perler i alt	1	7					
Forskel		$7 - 1 = 6$					





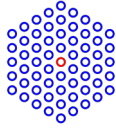
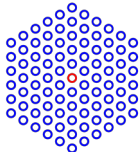
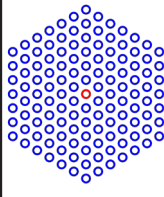
Kan du regne ud, hvor mange perler der er i snefnug nr. 10?

8 Er de alle primtal?

I de to voksende mønstre ovenfor er antallet af perler ofte primtal. Er de alle sammen primtal?

Udfyld de skemaerne.

Snefnug							
Perler i alt	1	7					
Divisorer	1	1,7					
Primtal	Nej	Ja					

Snefnug							
Perler i alt	1	7					
Divisorer	1	1,7					
Primtal	Nej	Ja					

9 Byg et snefnug, og forklar en ven, hvordan dit snefnug ser ud

Byg dit eget snefnug på en perleplade.

Bagefter skal du forklare en anden, hvordan dit snefnug ser ud, så han eller hun kan bygge et snefnug, der præcis ligner dit. Du må ikke vise dit snefnug frem eller tegne det, du må kun bruge ord.

