

11. Centered Regular Polygons and Stars A

The two images below are $n = k^2 - 1$ CRPS images, but the values of n and k have been suppressed. Answer the following questions.

1. What are the values of n and k for each image?
2. How many centered regular polygons (CRP) are in each image?
3. How many centered regular stars (CRS) are in each image?
4. How many degrees is each point of the 2-jump CRS in each image?
5. What is the angle in degrees of the CRP in each image?
6. What is J_{sharpest} , the number of vertex (cusp) jumps for the sharpest jump CRS in the image?
7. How many degrees is the point of the sharpest CRS in each image? (**NOTE:** Only one of the six angle answers is a whole number. Give answers to 0.1°)

$n = \underline{\hspace{1cm}}$ $k = \underline{\hspace{1cm}}$ $N_{\text{CRP}} = \underline{\hspace{1cm}}$ $N_{\text{CRS}} = \underline{\hspace{1cm}}$ Angle of CRP $\underline{\hspace{1cm}}$ °

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Angle of 2-jump CRS $\underline{\hspace{1cm}}$ ° $J_{\text{sharpest}} = \underline{\hspace{1cm}}$ Angle of sharpest CRS $\underline{\hspace{1cm}}$ °

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