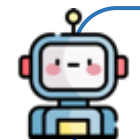




Question : Using the digits $\{0, 6, 7, 8, 9\}$, how many two-digit numbers with distinct digits can be formed?



Solution : A two-digit number cannot begin with 0, so the tens place has 4 admissible choices $\{6, 7, 8, 9\}$. For each choice, the units place can be any of the remaining 4 digits (including 0). Hence the count is $(4 \times 4 = 16)$.
Equivalent argument: Total permutations of two distinct digits from five is $(P(5, 2) = 20)$. Exclude the 4 invalid numbers with leading zero $(0x, (x \in \{6, 7, 8, 9\}))$: $(20 - 4 = 16)$.

Answer: 16.

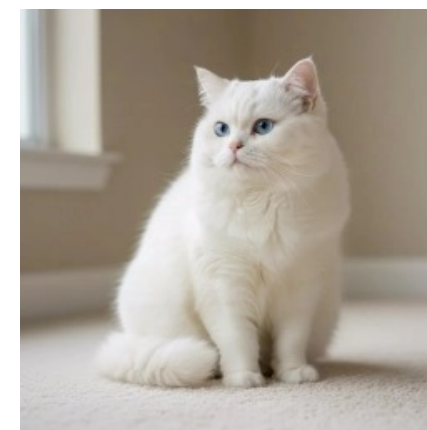
(a) Understanding Only



Question: Chubby white cat with blue eyes, sitting, photorealistic, neutral background.



Okay, here's that image for you:



(b) Generation Only



Question: Draw a regular pentagon inscribed in a circle.



Step 1: Construct a radius OP passing through the center O and perpendicular to OA

Construction:

1. Construct the line OA .
2. Construct a line l passing through point O and perpendicular to the line OA .
3. Line l intersects circle c at two points; select either intersection as point P .

Step 4: With center A and radius AQ , mark points B and E on circle c

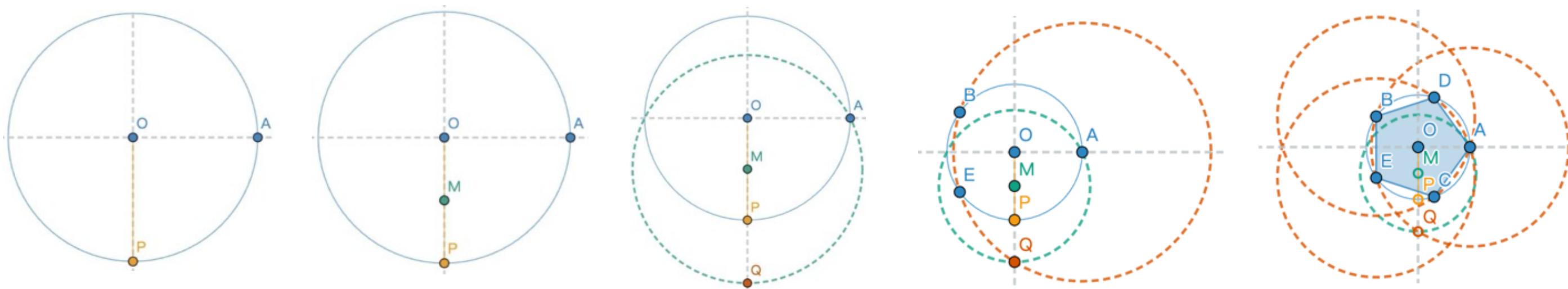
Construction:

1. With point A as the center and the length of the line segment AQ as the radius, construct an auxiliary circle c_A .
2. Circle c_A intersects the original circle c at two points. These are two additional vertices of the regular pentagon, B and E .

Step 5: Sequentially mark the remaining vertices C, D and connect to form the regular pentagon

Construction:

1. With B as the center and a radius of AQ , draw a circle. This circle intersects circle c at A and another point, C .
2. With E as the center and a radius of AQ , draw a circle. This circle intersects circle c at A and another point, D .
3. Connect points A, B, C, D , and E sequentially.



(c) GGBench: Understanding & Generation