

$$\begin{aligned}
 A_8^{\text{ans}} = & \text{Diagram 1} + \text{Diagram 2} \\
 & + \text{Diagram 3} + \text{Diagram 4} .
 \end{aligned}$$

The diagrams are represented as follows:
 

- Diagram 1:** A central circle labeled  $\mathcal{O}(p^m)$  with six external lines (two horizontal, two diagonal, and two vertical).
- Diagram 2:** Three circles labeled  $\mathcal{O}(p^a)$ ,  $\mathcal{O}(p^b)$ , and  $\mathcal{O}(p^c)$  connected in a horizontal chain. The first and last circles have four external lines each, while the middle circle has two.
- Diagram 3:** Two circles labeled  $\mathcal{O}(p^d)$  and  $\mathcal{O}(p^e)$  connected in a horizontal chain. Both circles have four external lines each.
- Diagram 4:** Three circles labeled  $\mathcal{O}(p^k)$ ,  $\mathcal{O}(p^l)$ , and  $\mathcal{O}(p^n)$  connected in a horizontal chain. The first and last circles have four external lines each, while the middle circle has two.