

Goal: Show $P(n)$ is true

Therefore, $P(n)$ is true for $n = 24, 25, 26, 27, 28$

Inductive Step

Inductive Hypothesis: $P(i)$ is true for $24 \leq i \leq k$, where $k \geq 28$.

Goal: Show that $P(k+1)$ is true, under this assumption.

$k \geq 28$, so $k-4 \geq 24$.

$k+1 \geq 29$, $k+1-5 = k-4$

By inductive hypothesis, since $24 \leq k-4 \leq k$, $P(k-4)$ is true.

Therefore, $k-4 = 5x + 7y$, and $k+1 = 5x + x + 7y$.

Therefore $P(k+1)$ is true.

By the principle of strong mathematical induction, since $P(k)$ is true and $P(k+1)$ is true, and $\bigwedge_{k=24}^{\infty} P(k) \rightarrow P(k+1)$ is true, 5 cent or 7 cent stamps can make 24 cent or more postage.