24. GIVEN A RECURSIVE DEF OF:

a) THE SET OF ODD POSITIVE INTS = S

BASE CASE $1 \in S$

RECURSIVE CASE: If $n \in S$ then $n+1 \in S$

b) THE SET OF POSITIVE INT POWERS OF 3 = S

BASE CASE: $3 \in S$

RECURSIVE CASE: If $n \in S$ the $3n \in S$

c) THE SET OF POLYNOMIALS WITH INT COEFF. = S

BASE CASE: $0 \in S$

RECURSIVE CASE: If $p(x) \in S$, then $p(x) + cx^n \in S$,
where $c, n \in \mathbb{Z}$ and $n \geq 0$.

26. LET S BE THE SUBSET OF ORDERED PAIRS OF INTS DEFINED BY.

a) BASE CASE: $(0,0) \in S$

RECURSIVE CASE: If $(a,b) \in S$, then $(a+2, b+3) \in S$ and $(a+3, b+2) \in S$.

FIRST FIVE APPLICATIONS:

1. $(2,3), (3,2)$

2. $(4,5), (5,5), (6,4)$

3. $(6,8), (7,8), (8,7), (9,6)$

4. $(8,12), (9,11), (10,10), (11,9), (12,8)$

5. $(10,15), (11,14), (12,13), (13,12), (14,11), (15,10)$