

Problems from Section 4.3

24. a) Odd integers are obtained from other odd integers by adding 2. Thus we can define this set S as follows:
 $1 \in S$; and if $n \in S$, then $n + 2 \in S$.
- b) Powers of 3 are obtained from other powers of 3 by multiplying by 3. Thus we can define this set S as follows: $3 \in S$ (this is 3^1 , the power of 3 using the smallest positive integer exponent); and if $n \in S$, then $3n \in S$.

Problems from Section 5.1

2. By the product rule there are $27 \cdot 37 = 999$ offices.
4. By the product rule there are $12 \cdot 2 \cdot 3 = 72$ different types of shirt.