HW 9.1 p. 708: #11, 15, 16, 24, 26, 35, 45, 46, 49cd

Thursday, May 7, 2015
3:01 PM

(11) ${}_{13}P_3 = 13 \cdot 12 \cdot 11 = 1716$

(15) ${}_6P_2 = 6 \cdot 5 = 30$

(16) ${}_9P_2 = 9 \cdot 8 = 72$

(24) $36 \cdot 36 \cdot 36 \cdot 36 \cdot 36 = 36^5 = 60{,}466{,}176$

DIGITS = 10
LETTERS = 26
36

(26) $2^{10} = 1024$

(35) $6 \cdot 6 \cdot 6 \cdot 6 \cdot 6 = 6^5 = 7776$

(45) $\frac{4}{E} \cdot {}_6C_2 \cdot \frac{6}{D} = 360$ D

(46) ${}_{10}P_5 = 10 \cdot 9 \cdot 8 \cdot 7 \cdot 6$
$= 30{,}240$ D

(49) (c) ${}_{25}P_{11}$ Example: How many ways can you choose 11 books out of 25 to be arranged on a display shelf?

(d) 2^5 Example: How many different 5 digit binary numbers can be made (made up of 1's and 0's, repeats allowed)