Math 20 Homework # 2

Due April 8, 2013

Do the following problems from the book: 3.2.2, 3.2.8, 3.2.10, 3.2.12, 3.2.13, 3.2.20, 3.2.24, 3.2.35, 3.2.39

Also, solve the following problems:

1. What is the probability that a randomly chosen integer from 1 to 10000 is not divisible by 4, 5, 6, or 7?

2. Find a formula for
$$\sum_{k=0}^{n} \binom{3n}{3k}$$
that doesn't include a Σ (or $\cdots$).