

# Homework 32, Section 6.3: 2, 4, 6, 8, 12

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## Homework

**2.**

$$C(7, 5) \cdot \left(\frac{1}{6}\right)^5 \cdot \left(\frac{5}{6}\right)^2 + C(7, 6) \cdot \left(\frac{1}{6}\right)^6 \cdot \left(\frac{5}{6}\right)^1 + C(7, 7) \cdot \left(\frac{1}{6}\right)^7$$

**4.**

$$\frac{1}{2}^{10} \cdot (C(10, 8) + C(10, 9) + 1)$$

**6.**

$$C(5, 3) \cdot \left(\frac{1}{2}\right)^3 \cdot \left(\frac{1}{2}\right)^2 + C(5, 4) \cdot \left(\frac{1}{2}\right)^4 \cdot \left(\frac{1}{2}\right)^1 + \frac{1}{2}^5$$

**8.**

$$C(4, 3) \cdot \left(\frac{1}{2}\right)^3 \cdot \left(\frac{1}{2}\right)^1 + \frac{1}{2}^4$$

**12. A)**

$$\frac{3 \cdot 5 \cdot 4}{6^3}$$

**12. B)**

$$\frac{3 \cdot 5 \cdot 4}{6^3}$$

**12. C)**

$$\frac{3 \cdot 5 + 5}{6^3}$$