

$$1. \quad 1 - \left(\frac{8}{15}\right)^2 = 71.55\%$$

2. $\left(\frac{100,000}{2}\right) \cdot \frac{1}{2} \cdot \frac{1}{2} = 12,500$

even numbers →

odd first digit

odd second digit

$$\frac{5}{1} \cdot \frac{4}{2} \cdot \frac{7}{5} = \frac{42}{1,000}$$

$$\left(\frac{42}{1000}\right)^5 \cdot \left(\frac{958}{1000}\right)^3 = 1.14 \text{ E-7}$$

• 000000114 %

3. Yes, you could roll 3, 3, 3 and satisfy B, but fail A. You could also roll 4, 4, 4 and satisfy both. Or 4, 5, 2 and satisfy A, but not B.

$$1. \left(\frac{1}{4} \right)^5 \cdot x = .5 \quad \leftarrow 50\% \text{ chance of ore flush}$$

$$x = 512$$

2.