

HW: Worksheet/1-13, 21

Warm up

A spinner is divided into 8 sections numbered from 1 to 8. You spin the spinner once. Find each probability.

$$1) P(3) = \frac{1}{8}$$

$$2) P(\text{odd}) = \frac{4}{8} = \frac{1}{2}$$

$$3) P(\text{greater than 5}) = \frac{3}{8}$$

$$4) P(2 \text{ or } 5) = \frac{2}{8} = \frac{1}{4}$$

$$5) P(\text{not } 1) = \frac{7}{8}$$



HW Solutions

(14)

$$\underline{8} \cdot \underline{10} = 80$$

$$\underline{10} \cdot \underline{9} \cdot \underline{8} \cdot \underline{7}$$

5040

(12)

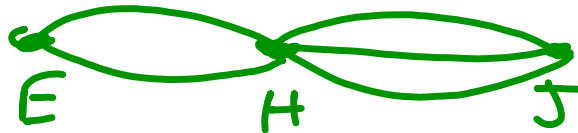
$$\underline{6} \cdot \underline{6} \cdot \underline{6} \cdot \underline{6} \cdot \underline{6}$$

7776

(11)

$$2 \cdot 3 = 6$$

$\frac{1}{6}$



$$\textcircled{7} \quad 12 \cdot 7 = 84$$

$$\textcircled{8} \quad 3 \cdot 4 = 12$$

$$\textcircled{12} \quad 3 \cdot 6 = 18$$

$$\textcircled{\frac{1}{18}}$$

①

$$\underline{2}$$

$$\underline{2} \cdot \underline{2} = 4$$

$$\underline{2} \cdot \underline{2} \cdot \underline{2} = 8$$

$$\textcircled{2^n}$$

$$10 \quad 4 \cdot 2 \cdot 2 = 16$$

$$20 \quad 3 \cdot 2 \cdot 24 = 144$$

$$\frac{1}{144}$$

Theoretical Probability

$$P(\text{event}) = \frac{\text{\# of favorable outcomes}}{\text{total \# of possible outcomes}}$$

Experimental Probability - probability based on experimental data

$$P(\text{event}) = \frac{\text{\# of times event occurs}}{\text{total \# of trials}}$$

Rolling a Die



Theoretical

1 -
2 -
3 -
4 -
5 -
6 -

1-10-10-10-10-10

Experimental

(we will do 30 trials)

1 -		$\frac{3}{30}$	=	$\frac{1}{10}$
2 -		$\frac{4}{30}$	=	$\frac{2}{15}$
3 -		$\frac{4}{30}$	=	$\frac{2}{15}$
4 -		$\frac{4}{30}$	=	$\frac{2}{15}$
5 -		$\frac{4}{30}$	=	$\frac{2}{15}$
6 -		$\frac{5}{30}$	=	$\frac{1}{6}$

Rolling 2 Dice

$P(6) = \frac{5}{36}$ $P(7) = \frac{6}{36} = \frac{1}{6}$

Die 1

	1	2	3	4	5	6
1	2	3	4	5	6	7
2	3	4	5	6	7	8
3	4	5	6	7	8	9
4	5	6	7	8	9	10
5	6	7	8	9	10	11
6	7	8	9	10	11	12

Die 2

$P(11) = \frac{2}{36} = \frac{1}{18}$

You roll two dice.

$$1) P(5) = \frac{4}{36} = \frac{1}{9}$$

$$2) P(1 \text{ or } 2) = \frac{1}{36}$$

$$3) P(\text{greater than } 9) = \frac{6}{36} = \frac{1}{6}$$

$$4) P(\text{less than or equal to } 4) = \frac{6}{36} = \frac{1}{6}$$

$$5) P(\text{not a multiple of } 4) = \frac{27}{36} = \frac{3}{4}$$

$$6) P(\text{prime factor of } 12) = \frac{3}{36} = \frac{1}{12}$$

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