probability part 5:

| | 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 |

Two dice are thrown, what is the probability that their sum is 7

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

$$P(8) = \frac{5}{36} = P(6)$$

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

$$P(10) = \frac{3}{36} = P(4)$$

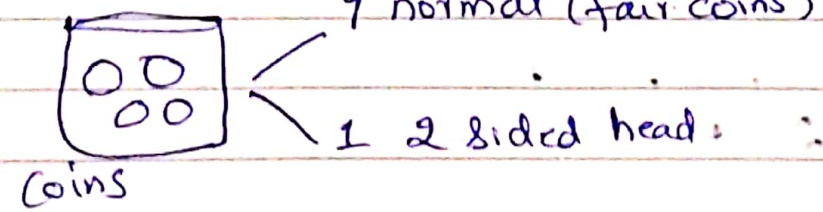
$$P(11) = \frac{2}{36} = P(3)$$

$$P(12) = \frac{1}{36} = P(2)$$

sat sun mon tue wed thu fri Date : / /

#16

part 6.




$P(HHHHH)$

Normal $P(\frac{5}{5}\text{heads}|\text{Normal})\ (\frac{1}{2})^5 = \frac{1}{32}$

$\frac{9}{10}$

$\frac{1}{10}$ 2sided head $P(\frac{5}{5}h\,|\,2\text{sided}) \times 1$

$$P(\tfrac{5}{5}h) = P(\tfrac{5}{5}\text{heads}\,|\,\text{Normal})\,P(\text{Norm}) + P(\tfrac{5}{5}\text{heads}|2s)\,P(2s)$$

$$= \frac{1}{32} \times \frac{9}{10} + 1 \times \frac{1}{10}$$

$$= \frac{9}{320} + \frac{32}{320} = \frac{41}{320}$$

$P(2s\,|\,5|5\text{ heads})$

KHAN