No. Date

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Lecture Group : ~~TC2L~~ TC1L		

1. i) num who like both M and K = 32

$3x + 5 = 32$

$3x = 27$

$x = 9$ //

ii) $3 + 3x + x = 3 + 3(9) + 9$

$= 39$ //

2. i) W = 4 M = 5

_ _ _ _ _ _ _ _ _

9 8 7 6 5 4 3 2 1

$9! = 362\,880$ //

ii) M _ _ _ _ _ _ _ M

2 7 6 5 4 3 2 1

$2! \times 7! = 10080$ //

iii) $\frac{10\,080}{362\,880} = \frac{1}{36}$ //

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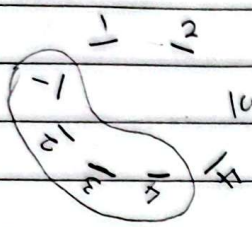
3.



$$\frac{5!}{5} \times 4! = 576$$

4. i) $S = 0.15$

$S' = 0.75$

$n = 20$

$$P(X \leq 2) = {}^{20}C_2 (0.15)^2 (0.85)^{20-2} + {}^{20}C_1 (0.15)^1 (0.85)^{20-1} + {}^{20}C_0 (0.15)^0 (0.85)^{20-0}$$

$$= 0.2293 + 0.1368 + 0.0388$$

$$= 0.4049$$

ii) $\bar{x} = np$

$= 20 \times 0.15$

$= 3$

$\sigma = \sqrt{npq}$

$= \sqrt{20 \times 0.15 \times 0.85}$

$= \sqrt{2.55}$

$= 1.5969$