

$$C) P(x | \text{survived} = "1") = 0,70 \times 0,35 \times 0,70 \times 0,56 \times 0,43 \times 0,66 = 0,02803$$

$$P(x | \text{survived} = "0") = 0,17 \times 0,33 \times 0,70 \times 0,47 \times 0,66 \times 0,67 = 0,00703$$

$$D) P(x | \text{survived} = "1") = 0,02803 \times 0,66 = 0,01849$$

$$P(x | \text{survived} = "0") = 0,00703 \times 0,33 = 0,00231$$

E) Kesimpulan = survived "1" class 1

5) Data Testing ke 5

Sex = male, embarked = S, age cate = adult, Fare cate = very ^{cheap} ~~cheap~~
 sibling_sponse = yes, parent_chill = no

$$a) P(c_i) = P(\text{survived}) = "1" = 48 / 72$$

$$P(c_i) = P(\text{survived}) = "0" = 24 / 72 = 0,33$$

b) $P(x | c_i)$ untuk $i = 1, 2$

$$- P(\text{sex} = \text{"male"} | \text{survived} = 1) = 14 / 48 = 0,29$$

$$- P(\text{sex} = \text{"male"} | \text{survived} = 0) = 21 / 24 = 0,8$$

$$- P(\text{embarked} = S | \text{survived} = 1) = 30 / 48 = 0,62$$

$$- P(\text{embarked} = S | \text{survived} = 0) = 15 / 24 = 0,62$$

$$- P(\text{Age cate} = \text{Adult} | \text{survived} = 1) = 35 / 48 = 0,72$$

$$- P(\text{Age cate} = \text{Adult} | \text{survived} = 0) = 17 / 24 = 0,70$$

$$- P(\text{Fare cate} = \text{very cheap} | \text{survived} = 1) = 28 / 48 = 0,58$$

$$- P(\text{Fare cate} = \text{very cheap} | \text{survived} = 0) = 14 / 24 = 0,58$$

$$- P(\text{sibling_sponse} = \text{yes} | \text{survived} = 1) = 26 / 48 = 0,54$$

$$- P(\text{sibling_sponse} = \text{yes} | \text{survived} = 0) = 8 / 24 = 0,33$$

$$- P(\text{parent_chill} = \text{No} \mid \text{survived} = 1) = 37/48$$

$$= 0.66\overline{6}$$

$$- P(\text{parent_chill} = \text{No} \mid \text{survived} = 0) = 15/24$$

$$= 0.62\overline{5}$$

$$c) P(x \mid \text{survived} = "1") = 0.29 \times 0.62 \times 0.72 \times 0.58 \times 0.54 \times 0.66$$

$$= 0.02676$$

$$P(x \mid \text{survived} = "0") = 0.8 \times 0.62 \times 0.70 \times 0.58 \times 0.33 \times 0.62$$

$$= 0.04120$$

$$d) P(x \mid \text{survived} = "1") = 0.0267 \times 0.66 = 0.0176$$

$$P(x \mid \text{survived} = "0") = 0.0412 \times 0.53 = 0.0135$$

$$e) \text{kesimpulan} = \text{survived "1" class } \downarrow$$

6) Data Testing ke 6

sex = female, embarked = s, age_cat = Adult, fare_cat = normal

sibling_spouse = no, parent_chill = yes

$$a) P(C_i) = P(\text{survived} = 1) = 48/72$$

$$= 0.66$$

$$P(C_i) = P(\text{survived} = 0) = 24/72$$

$$= 0.33$$

$$b) P(x \mid C_i) \text{ untuk } i = 1, 2$$

$$- P(\text{sex} = \text{female} \mid \text{survived} = 1) = 34/48$$

$$= 0.70\overline{8}$$

$$- P(\text{sex} = \text{female} \mid \text{survived} = 0) = 3/24$$

$$= 0.12\overline{5}$$

$$- P(\text{embarked} = s \mid \text{survived} = 1) = 30/48$$

$$= 0.62\overline{5}$$

$$- P(\text{embarked} = s \mid \text{survived} = 0) = 15/24$$

$$= 0.62\overline{5}$$

$$- P(\text{Age_cat} = \text{Adult} \mid \text{survived} = 1) = 35/48$$

$$= 0.72\overline{9}$$

$$- P(\text{Age_cat} = \text{Adult} \mid \text{survived} = 0) = 17/24$$

$$= 0.70\overline{8}$$

$$- P(\text{fare_cat} = \text{normal} \mid \text{survived} = 1) = 7/48$$

$$= 0.14\overline{6}$$

$$- P(\text{fare_cat} = \text{normal} \mid \text{survived} = 0) = 2/24$$

$$= 0.08\overline{3}$$

$$- P(\text{sibling_spouse} = \text{no} \mid \text{survived} = 1) = 21/48$$

$$= 0.43\overline{7}$$

$$- P(\text{sibling_spouse} = \text{no} \mid \text{survived} = 0) = 16/24$$

$$= 0.66$$

$$- P(\text{parent_chil} = \text{yes} \mid \text{survived} = 1) = 15/48$$

$$= 0.31$$

$$- P(\text{parent_chil} = \text{yes} \mid \text{survived} = 0) = 9/24$$

$$= 0.37$$

$$C) P(x \mid \text{survived} = 1) = 0.70 \times 0.62 \times 0.72 \times 0.14 \times 0.43 \times 0.31$$

$$= 0.00583$$

$$P(x \mid \text{survived} = 0) = 0.12 \times 0.62 \times 0.70 \times 0.08 \times 0.66 \times 0.31$$

$$= 0.00101$$

$$D) P(x \mid \text{survived} = 1) = 0.00583 \times 0.66 = 0.003847$$

$$P(x \mid \text{survived} = 0) = 0.00101 \times 0.33 = 0.000333$$

$$E) \text{Kesimpulan} \quad \text{survived "1" class 1}$$

3) Data Testing ke 2

sex = male, embarked = 0, Age_cate = Adult, fare_cate = very_cheap, sibling_spouse = no, parent_chil = no

$$a) P(c) = P(\text{survived} = 1) = 48/72$$

$$= 0.66$$

$$P(c) = P(\text{survived} = 0) = 24/72$$

$$= 0.33$$

$$b) P(x \mid c) \text{ untuk } i = 1, 2$$

$$- P(\text{sex} = \text{male} \mid \text{survived} = 1) = 14/48$$

$$= 0.29$$

$$- P(\text{~~~~~} \parallel \text{~~~~~} = 0) = 21/24$$

$$= 0.87$$

$$- P(\text{embarked} = C \mid \text{survived} = 1) = 17/48$$

$$= 0.35$$

$$- P(\text{~~~~~} \parallel \text{~~~~~} = 0) = 8/24$$

$$= 0.33$$

$$- P(\text{Age_cate} = \text{Adult} \mid \text{survived} = 1) = 35/48$$

$$= 0.72$$

$$- P(\text{~~~~~} \parallel \text{~~~~~} = 0) = 17/24$$

$$= 0.70$$

$$- P(\text{fare_cate} = \text{very_cheap} \mid \text{survived} = 1) = 28/48$$

$$= 0.58$$

$$- P(\text{~~~~~} \parallel \text{~~~~~} = 0) = 14/24$$

$$= 0.58$$

$$-P(\text{sibling_spouse} = \text{no} \mid \text{survived} = 1) = 23/48$$

$$= 0.45$$

$$-P(\text{sex} = \text{male} \mid \text{survived} = 0) = 16/24$$

$$= 0.66$$

$$-P(\text{parent_chil} = \text{no} \mid \text{survived} = 1) = 32/48$$

$$= 0.66$$

$$-P(\text{fare_cate} = \text{cheap} \mid \text{survived} = 0) = 15/24$$

$$= 0.62$$

$$c) P(x \mid \text{survived} = 1) = 0.29 \times 0.35 \times 0.72 \times 0.58 \times 0.45 \times 0.66$$

$$= 0.01750$$

$$P(x \mid \text{survived} = 0) = 0.18 \times 0.32 \times 0.70 \times 0.58 \times 0.66 \times 0.62$$

$$= 0.043859$$

$$D) P(x \mid \text{survived} = 1) = 0.01750 \times 0.66 = 0.00830$$

$$P(x \mid \text{survived} = 0) = 0.04385 \times 0.33 = 0.01447$$

$$E) \text{Resimpulan survive} = 0 \text{ class } 1$$

6) Data Testing 8

sex = male, embarked = C, Age_cate = old, Fare_cate = cheap

sibling_spouse = yes, parent_chil = yes

$$a) P(c) = P(\text{survived} = 1) = 48/42$$

$$= 0.66$$

$$P(c) = P(\text{survived} = 0) = 24/72$$

$$= 0.33$$

$$b) P(x \mid c) \text{ untuk } i = 1, 2$$

$$-P(\text{sex} = \text{male} \mid \text{survived} = 1) = 14/48$$

$$= 0.29$$

$$-P(\text{sex} = \text{female} \mid \text{survived} = 0) = 21/24$$

$$= 0.8$$

$$-P(\text{embarked} = C \mid \text{survived} = 1) = 17/48$$

$$= 0.35$$

$$-P(\text{embarked} = S \mid \text{survived} = 0) = 8/24$$

$$= 0.33$$

$$-P(\text{Age_cate} = \text{old} \mid \text{survived} = 1) = 1/48$$

$$= 0.02$$

$$-P(\text{Age_cate} = \text{young} \mid \text{survived} = 0) = 6/24$$

$$= 0.25$$

$$-P(\text{Fare_cate} = \text{cheap} \mid \text{survived} = 1) = 9/48$$

$$= 0.18$$

$$- P(\text{fare_cat} = \text{cheap} \mid \text{survived} = 0) = 5 / 24 = 0.20$$

$$- P(\text{sibling_spouse} = \text{yes} \mid \text{survived} = 1) = 26 / 48 = 0.54$$

$$- P(\text{parent_chil} = \text{yes} \mid \text{survived} = 0) = 8 / 24 = 0.33$$

$$- P(\text{parent_chil} = \text{yes} \mid \text{survived} = 1) = 16 / 48 = 0.33$$

$$- P(\text{parent_chil} = \text{no} \mid \text{survived} = 0) = 9 / 24 = 0.37$$

$$c) P(x \mid \text{survived} = "1") = 0.29 \times 0.35 \times 0.02 \times 0.18 \times 0.54 \times 0.33 = 0.00006$$

$$P(x \mid \text{survived} = "0") = 0.18 \times 0.33 \times 0.25 \times 0.20 \times 0.33 \times 0.37 = 0.00161$$

$$d) P(x \mid \text{survived} = "1") = 0.00006 \times 0.66 = 0.00003$$

$$P(x \mid \text{survived} = "0") = 0.00161 \times 0.33 = 0.00053$$

$$e) \text{Kesimpulan} = \text{survived} = "0" \text{ class } \downarrow$$

9) Data testing ke 9

sex = male, embarked = s, Age_cat = Adult, fare_cat = "cheap"
sibling_spouse = yes, parent_chil = no.

$$a) P(c_i) = P(\text{survived} = 1) = 48 / 72 = 0.66$$

$$P(c_i) = P(\text{survived} = 0) = 24 / 72 = 0.33$$

$$b) P(x \mid c_i) \text{ untuk } i = 1, 2$$

$$- P(\text{sex} = \text{male} \mid \text{survived} = "1") = 14 / 48 = 0.29$$

$$- P(\text{sex} = \text{female} \mid \text{survived} = "0") = 21 / 24 = 0.8$$

$$- P(\text{embarked} = s \mid \text{survived} = "1") = 30 / 48 = 0.62$$

$$- P(\text{embarked} = c \mid \text{survived} = "0") = 15 / 24 = 0.62$$

$$- P(\text{Age_cat} = \text{Adult} \mid \text{survived} = "1") = 35 / 48 = 0.72$$

$$- P(\text{Age_cat} = \text{Child} \mid \text{survived} = "0") = 13 / 24 = 0.50$$

$$-P(\text{fare_cate} = \text{'cheap'} / \text{survived} = 1) = 9/48 \\ = 0.18$$

$$-P(\text{---} // \text{---} = 0) = 5/24 \\ = 0.20$$

$$-P(\text{sibling_spouse} = \text{yes} / \text{survived} = 1) = 26/48 \\ = 0.54$$

$$-P(\text{---} // \text{---} = 0) = 8/24 \\ = 0.33$$

$$-P(\text{parent_chil} = \text{yes} / \text{survived} = 1) = 16/48 \\ = 0.33$$

$$-P(\text{---} // \text{---} = 0) = 9/24 \\ = 0.37$$

$$c) P(x | \text{survived} = 1) = 0.18 \times 0.67 \times 0.72 \times 0.18 \times 0.54 \times 0.33 \\ = 0.00415$$

$$P(x | \text{survived} = 0) = 0.8 \times 0.67 \times 0.70 \times 0.20 \times 0.33 \times 0.37 \\ = 0.00842$$

$$d) P(x | \text{survived} = 1) = 0.00415 \times 0.66 = 0.00273$$

$$P(x | \text{survived} = 0) = 0.00841 \times 0.33 = 0.00279$$

e) Kesimpulan survived "0" class 1

10) Data testing ke 10

sex = male, embarked = S, Age_cate = kid, fare_cate = very_cheap
sibling_spouse = no, parent_chil = yes

$$a) P(c_i) = P(\text{survived} = 1) = 48/72 \\ = 0.66$$

$$P(c_i) = P(\text{survived} = 0) = 24/72 \\ = 0.33$$

b) $P(x | c_i)$ untuk $i = 1, 2$

$$-P(\text{sex} = \text{male} / \text{survived} = 1) = 14/48 \\ = 0.29$$

$$-P(\text{---} // \text{---} = 0) = 21/24 \\ = 0.8$$

$$-P(\text{embarked} = S / \text{survived} = 1) = 30/48 \\ = 0.62$$

$$-P(\text{---} // \text{---} = 0) = 15/24 \\ = 0.62$$

$$-P(\text{Age_cat} = \text{kid} / \text{survived} = "1") = 5/48$$

$$= 0.10$$

$$-P(\text{Age_cat} = \text{Adult} / \text{survived} = "0") = 0/24$$

$$= 0$$

$$-P(\text{Fare_cat} = \text{very_cheap} / \text{survived} = 1) = 28/48$$

$$= 0.58$$

$$-P(\text{Fare_cat} = \text{cheap} / \text{survived} = 0) = 14/24$$

$$= 0.58$$

$$-P(\text{sibling_spouse} = \text{No} / \text{survived} = 1) = 22/48$$

$$= 0.45$$

$$-P(\text{sibling_spouse} = \text{Yes} / \text{survived} = 0) = 16/24$$

$$= 0.66$$

$$-P(\text{parent_chil} = \text{yes} / \text{survived} = 1) = 32/48$$

$$= 0.66$$

$$-P(\text{parent_chil} = \text{no} / \text{survived} = 0) = 15/24$$

$$= 0.62$$

$$c) P(x | \text{survived} = 1) = 0.29 \times 0.62 \times 0.10 \times 0.58 \times 0.45 \times 0.66$$

$$= 0.00309$$

$$P(x | \text{survived} = 0) = 0.8 \times 0.62 \times 0 \times 0.38 \times 0.66 \times 0.62 = 0$$

$$d) P(x | \text{survived} = 1) = 0.00309 \times 0.66 = 0.002$$

$$P(x | \text{survived} = 0) = 0 \times 0.33 = 0$$

$$e) \text{kesimpulan} = \text{survived} = 1 \quad \text{class} = 3$$

ii) Data testing ke II

sex = female, embarked = C, Age_cat = Adult, fare_cat = normal
sibling_spouse = yes, parent_chil = no.

$$a) P(c_i) = P(\text{survived} = "1") = 48/72$$

$$= 0.66$$

$$P(c_i) \cdot P(\text{survived} = "0") = 24/72$$

$$= 0.33$$

$$b) P(x | c_i) \text{ untuk } i = 1, 2$$

$$-P(\text{sex} = \text{female} / \text{survived} = 1) = 34/48$$

$$= 0.7$$

$$-P(\text{sex} = \text{male} / \text{survived} = 0) = 3/24$$

$$= 0.12$$

$$-P(\text{Age_cat} = \text{Adult} / \text{survived} = 1) = 35/48$$

$$= 0.72$$

$$-P(\text{Age_cat} = \text{Adult} \mid \text{survived} = 0) = 17/24 = 0.70$$

$$-P(\text{Fare_cat} = \text{normal} \mid \text{survived} = 1) = 7/48 = 0.14$$

$$-P(\text{---} \parallel \text{---} = 0) = 2/24 = 0.08$$

$$-P(\text{sibling_spouse} = \text{yes} \mid \text{survived} = 1) = 26/48 = 0.54$$

$$-P(\text{parent_chil} = \text{no} \mid \text{survived} = 0) = 8/24 = 0.33$$

$$-P(\text{parent_chil} = \text{no} \mid \text{survived} = 1) = 32/48 = 0.66$$

$$-P(\text{---} \parallel \text{---} = 0) = 15/24 = 0.62$$

$$-P(\text{embarked} = \text{C} \mid \text{survived} = 1) = 17/48 = 0.35$$

$$-P(\text{---} \parallel \text{---} = 0) = 8/24 = 0.33$$

$$c) P(x \mid \text{survived} = 1) = 0.70 \times 0.72 \times 0.14 \times 0.84 \times 0.66 \times 0.35 = 0.0088$$

$$P(x \mid \text{survived} = 0) = 0.17 \times 0.70 \times 0.08 \times 0.33 \times 0.62 \times 0.33 = 0.0009$$

$$D) P(x \mid \text{survived} = 1) = 0.0088 \times 0.66 = 0.0058$$

$$P(x \mid \text{survived} = 0) = 0.0009 \times 0.33 = 0.0003$$

$$E) \text{kesimpulan} \quad \text{survived} = 1 \quad \text{class} = 1$$

12) Data testing ke 12

sex = male, embarked = S, Age_cat = Adult, Fare_cat = very cheap
sibling_spouse = no, parent_chil = no

$$a) P(c_i) = P(\text{survived} = "1") = 48/72 = 0.66$$

$$P(c_i) = P(\text{survived} = "0") = 24/72 = 0.33$$

$$b) P(x \mid c_i) \text{ untuk } i = 1, 2$$

$$P(\text{sex} = \text{male} \mid \text{survived} = 1) = 14/48 = 0.29$$

$$P(\text{---} \parallel \text{---} = 0) = 21/24 = 0.8$$

$$- P(\text{embarked} = S \mid \text{survived} = 1) = 30 / 48$$

$$= 0,62$$

$$- P(\text{embarked} = C \mid \text{survived} = 0) = 15 / 24$$

$$= 0,62$$

$$- P(\text{Age. cat} = Adult \mid \text{survived} = 1) = 35 / 48$$

$$= 0,72$$

$$- P(\text{Age. cat} = Child \mid \text{survived} = 0) = 17 / 24$$

$$= 0,70$$

$$- P(\text{Fare. cat} = very_cheap \mid \text{survived} = 1) = 28 / 48$$

$$= 0,58$$

$$- P(\text{Fare. cat} = cheap \mid \text{survived} = 0) = 14 / 24$$

$$= 0,58$$

$$- P(\text{sibling_spouse} = no \mid \text{survived} = 1) = 22 / 48$$

$$= 0,45$$

$$- P(\text{sibling_spouse} = yes \mid \text{survived} = 0) = 16 / 24$$

$$= 0,66$$

$$- P(\text{parent_chil} = no \mid \text{survived} = 1) = 32 / 48$$

$$= 0,66$$

$$- P(\text{parent_chil} = yes \mid \text{survived} = 0) = 15 / 24$$

$$= 0,62$$

$$c) P(x \mid \text{survived} = 1) = 0,66 \times 0,72 \times 0,62 \times 0,72 \times 0,58 \times 0,45 \times 0,66$$

$$= 0,0147$$

$$P(x \mid \text{survived} = 0) = 0,8 \times 0,60 \times 0,70 \times 0,58 \times 0,66 \times 0,62$$

$$= 0,0829$$

$$d) P(x \mid \text{survived} = 1) = 0,0147 \times 0,66 = 0,009$$

$$P(x \mid \text{survived} = 0) = 0,0829 \times 0,33 = 0,271$$

$$E) \text{kesimpulan} = \text{survived "0" class} = 1$$

13) Data testing ke 13

sex = male, embarked = S, Age. cat = adult, Fare. cat = very_cheap, sibling_spouse = no, paren_chil = no

$$a) P(c_i) = P(\text{survived} = 1) = 48 / 72$$

$$= 0,66$$

$$P(c_i) = P(\text{survived} = 0) = 24 / 72$$

$$= 0,33$$

$$b) P(x \mid c_i) \text{ untuk } i = 1, 2$$

$$- P(\text{sex} = male \mid \text{survived} = 1) = 14 / 48$$

$$= 0,29$$

$$-P(\text{sex} = \text{male} \mid \text{survived} = 0) = 21/24 \\ = 0.875$$

$$-P(\text{embarked} = S \mid \text{survived} = 1) = 30/48 \\ = 0.625$$

$$-P(\text{Age} = 1 \mid \text{survived} = 0) = 15/24 \\ = 0.625$$

$$-P(\text{Age} = \text{Adult} \mid \text{survived} = 1) = 35/48 \\ = 0.729$$

$$-P(\text{Fare} = 0 \mid \text{survived} = 0) = 17/24 \\ = 0.708$$

$$-P(\text{Fare} = \text{very cheap} \mid \text{survived} = 1) = 28/48 \\ = 0.583$$

$$-P(\text{Fare} = 1 \mid \text{survived} = 0) = 14/24 \\ = 0.583$$

$$-P(\text{sibling spouse} = \text{no} \mid \text{survived} = 1) = 21/48 \\ = 0.4375$$

$$-P(\text{sibling spouse} = 1 \mid \text{survived} = 0) = 16/24 \\ = 0.667$$

$$-P(\text{parent_chil} = \text{no} \mid \text{survived} = 1) = 32/48 \\ = 0.667$$

$$-P(\text{parent_chil} = 1 \mid \text{survived} = 0) = 15/24 \\ = 0.625$$

$$c) P(x \mid \text{survived} = 1) = 0.79 \times 0.62 \times 0.72 \times 0.58 \times 0.45 \times 0.66 \\ = 0.0223$$

$$P(x \mid \text{survived} = 0) = 0.8 \times 0.62 \times 0.70 \times 0.58 \times 0.66 \times 0.62 \\ = 0.0824$$

$$d) P(x \mid \text{survived} = 1) = 0.0223 \times 0.66 = 0.0147$$

$$P(x \mid \text{survived} = 0) = 0.0824 \times 0.33 = 0.0271$$

5) kesimpulan : survived '0' class = 1

14) Data testing ke 14

sex = male | embarked = S | Age_cat = Adult | fare_cat = very cheap |
sibling spouse = no | parent_chil = no

$$a) P(c_i) P = (\text{survived} = 1) = 48/72 \\ = 0.667$$

$$P(c_i) P = (\text{survived} = 0) = 24/72 \\ = 0.333$$

b) $P(x | C_i)$ untuk $i = 1, 2$

$$- P(\text{sex} = \text{male} | \text{survived} = 1) = 14 / 48$$

$$= 0,29$$

$$- P(\text{embarked} = S | \text{survived} = 1) = 21 / 24$$

$$= 0,8$$

$$- P(\text{Age-cat} = \text{Adult} | \text{survived} = 1) = 35 / 48$$

$$= 0,72$$

$$- P(\text{Fare-cat} = \text{Very cheap} | \text{survived} = 1) = 28 / 48$$

$$= 0,58$$

$$- P(\text{sibling spouse} = \text{no} | \text{survived} = 1) = 22 / 48$$

$$= 0,45$$

$$- P(\text{parent chil} = \text{no} | \text{survived} = 1) = 32 / 48$$

$$= 0,66$$

$$- P(\text{sex} = \text{female} | \text{survived} = 0) = 15 / 24$$

$$= 0,62$$

$$- P(\text{embarked} = S | \text{survived} = 0) = 21 / 24$$

$$= 0,8$$

$$- P(\text{Age-cat} = \text{Adult} | \text{survived} = 0) = 35 / 48$$

$$= 0,72$$

$$- P(\text{Fare-cat} = \text{Very cheap} | \text{survived} = 0) = 19 / 24$$

$$= 0,79$$

$$- P(\text{sibling spouse} = \text{no} | \text{survived} = 0) = 22 / 48$$

$$= 0,45$$

$$- P(\text{parent chil} = \text{no} | \text{survived} = 0) = 32 / 48$$

$$= 0,66$$

$$c) P(x | \text{survived} = 1) = 0,29 \times 0,8 \times 0,72 \times 0,58 \times 0,45 \times 0,66$$

$$= 0,0223$$

$$P(x | \text{survived} = 0) = 0,62 \times 0,8 \times 0,72 \times 0,58 \times 0,66 \times 0,62$$

$$= 0,0824$$

$$D.) P(x | \text{survived} = 1) = 0,0223 \times 0,66 = 0,0147$$

$$P(x | \text{survived} = 0) = 0,0824 \times 0,33 = 0,0271$$

E) kesimpulan = survived "0" class = 3

15.) Data testing ke 15

sex = male, embarked = S, Age-cat = Adult, Fare cat = Very cheap, sibling spous = no, parent chil = yes

$$a) P(c_1) P = (\text{Survived} = 1) = 48 / 72 = 0.66$$

$$p(c_1)p = (\text{survived} = 0) = 24/72 = 0.33$$

b) $P(x|c_i)$ untuk $i = 1, 2$

$$P(\text{sex} = \text{male} \mid \text{survived} = 1) = 14/48 = 0.29$$

$$P(\text{---} || \text{---}, 0) = 21 / 24 = 0.875$$

$$P(\text{embarked} = S \mid \text{survived} = 1) = 30 / 48 = 0.62$$

$$P(\text{---} | \text{---}) = 15 / 24 = 0.625$$

$$P(\text{Age cat} = \text{Adult} \mid \text{survived} = 1) = 35 / 48 = 0.72$$

$$P(\text{---} || \text{---} + 0) = 19/24 = 0,90$$

$$P(\text{For cat} = \text{very cheap} | \text{survived} = 1) = 28 / 48 = 0.58$$

$$P(\text{---} = 1, \text{---} = 0) = 14/24 = 0.58$$

$$p(\text{sibling}^{\text{spouse}} = \text{no} \mid \text{survived} = 1) = \frac{22}{48} = 0,45$$

$$P(\text{---} || \text{---} = 0) = 16/24 = 0.66$$

$$P(\text{parent_chil} = \text{yes} \mid \text{survived} = 1) = 16/48 = 0.33$$

$$P(\sim \parallel \sim = 0) = 9.39$$
$$= 0.37$$

c) $P(X | \text{survived} = 1) = 0.29 \times 0.62 \times 0.72 \times 0.58 \times 0.45 \times 0.33$
 $= 0.0111$

$$P(X | \text{survived} = 0) = 0.8 \times 0.62 \times 0.90 \times 0.58 \times 0.66 \times 0.39 = 0.0491$$

$$d) P(X | \text{survived} = 1) = 0.011 \times 0.66 = 0.0073$$

$$P(X | \text{survived} = 0) = 0.0491 \times 0.33 = 0.0162$$

e) kesimpulan = survived = 0 class = 2

16) Data testing ke 16

sex = male, embarked = C, age_cat = Adult, fare_cat = expensive, sibling spouse = no, parent chil = yes

$$a) P(c_i) = P(\text{survived} = 1) = 48/72 = 0.66$$

$$P(c_i) = P(\text{survived} = 0) = 24/72 = 0.33$$

$$b) P(x|c_i) \text{ untuk } i = 1, 2$$

$$- P(\text{sex} = \text{male} | \text{survived} = 1) = 14/48 = 0.29$$

$$- P(\text{sex} = \text{female} | \text{survived} = 0) = 21/24 = 0.8$$

$$- P(\text{embarked} = C | \text{survived} = 1) = 17/48 = 0.35$$

$$- P(\text{embarked} = S | \text{survived} = 0) = 8/24 = 0.33$$

$$- P(\text{Age_cat} = \text{Adult} | \text{survived} = 1) = 35/48 = 0.62$$

$$- P(\text{Age_cat} = \text{Child} | \text{survived} = 0) = 17/24 = 0.70$$

$$- P(\text{fare_cat} = \text{expensive} | \text{survived} = 1) = 3/48 = 0.06$$

$$- P(\text{fare_cat} = \text{cheap} | \text{survived} = 0) = 3/24 = 0.12$$

$$- P(\text{sibling spouse} = \text{no} | \text{survived} = 1) = 72/48 = 0.45$$

$$- P(\text{sibling spouse} = \text{yes} | \text{survived} = 0) = 16/24 = 0.66$$

$$- P(\text{parent chil} = \text{yes} | \text{survived} = 1) = 16/48 = 0.33$$

$$- P(\text{parent chil} = \text{no} | \text{survived} = 0) = 9/24 = 0.37$$

$$c) P(x | \text{survived} = 1) = 0.29 \times 0.35 \times 0.62 \times 0.06 \times 0.45 \times 0.33 = 0.0005$$

$$P(x | \text{survived} = 0) = 0.8 \times 0.33 \times 0.70 \times 0.12 \times 0.66 \times 0.37 = 0.0054$$

$$D) P(x | \text{survived} = 1) = 0.0005 \times 0.66 = 0.0003$$

$$P(x | \text{survived} = 0) = 0.0054 \times 0.33 = 0.0017$$

$$E) \text{kesimpulan} \quad \text{survived} \times 0 \quad \text{class} = 1$$

17) Data testing 17

Sex = Female, embarked = S, Age_cat = Adult, Fare_cat = Very cheap, sibling spouse = no, parent family = no

$$a) P(c_i) P(\text{survived} = 1) = 48 / 72 = 0.66$$

$$P(c_i) P(\text{survived} = 0) = 24 / 72 = 0.33$$

$$b) P(x | c_i) \text{ untuk } i = 1, 2$$

$$- P(\text{sex} = \text{Female} | \text{survived} = 1) = 34 / 48 = 0.70$$

$$- P(\text{embarked} = S | \text{survived} = 1) = 30 / 48 = 0.62$$

$$- P(\text{Age_cat} = \text{adult} | \text{survived} = 1) = 35 / 48 = 0.72$$

$$- P(\text{Fare_cat} = \text{very cheap} | \text{survived} = 1) = 28 / 48 = 0.58$$

$$- P(\text{sibling spouse} = \text{no} | \text{survived} = 1) = 32 / 48 = 0.66$$

$$- P(\text{parent family} = \text{no} | \text{survived} = 1) = 32 / 48 = 0.66$$

$$- P(\text{sex} = \text{Female} | \text{survived} = 0) = 14 / 24 = 0.58$$

$$- P(\text{embarked} = S | \text{survived} = 0) = 15 / 24 = 0.62$$

$$- P(\text{Age_cat} = \text{adult} | \text{survived} = 0) = 17 / 24 = 0.70$$

$$- P(\text{Fare_cat} = \text{very cheap} | \text{survived} = 0) = 14 / 24 = 0.58$$

$$- P(\text{sibling spouse} = \text{no} | \text{survived} = 0) = 16 / 24 = 0.66$$

$$- P(\text{parent family} = \text{no} | \text{survived} = 0) = 15 / 24 = 0.62$$

$$b) P(x | \text{survived} = 1) = 0.70 \times 0.62 \times 0.72 \times 0.58 \times 0.66 \times 0.66 = 0.0538$$

$$P(x | \text{survived} = 0) = 0.58 \times 0.62 \times 0.70 \times 0.58 \times 0.66 \times 0.62 = 0.1236$$

$$c) P(x | \text{survived} = 1) = 0.0538 \times 0.66 = 0.0355$$

$$P(x | \text{survived} = 0) = 0.1236 \times 0.33 = 0.0407$$

Kesimpulan = survived = 0 class 1

18) Data testing ke 18

sex = male, embarked = S, Age_cat = Adult, Fare_cat = very cheap, sibling spouse = no, parent chil = no

$$a) P(c_i) P : (\text{survived} = 1) = 48 / 72 = 0,66$$

$$P(c_i) p : (\text{survived} = 0) = 24 / 72 = 0,33$$

b) $P(x | c_i)$ untuk $i = 1, 2$

$$- P(\text{sex} = \text{male} | \text{survived} = 1) = 14 / 48 = 0,29$$

$$- P(\text{embarked} = S | \text{survived} = 1) = 30 / 48 = 0,62$$

$$- P(\text{Age_cat} = \text{Adult} | \text{survived} = 1) = 25 / 48 = 0,52$$

$$- P(\text{Fare_cat} = \text{very cheap} | \text{survived} = 1) = 20 / 48 = 0,41$$

$$- P(\text{sibling spouse} = \text{no} | \text{survived} = 1) = 22 / 48 = 0,45$$

$$- P(\text{parent chil} = \text{no} | \text{survived} = 1) = 32 / 48 = 0,66$$

$$- P(\text{sex} = \text{male} | \text{survived} = 0) = 13 / 24 = 0,54$$

$$- P(\text{embarked} = S | \text{survived} = 0) = 14 / 24 = 0,58$$

$$- P(\text{Age_cat} = \text{Adult} | \text{survived} = 0) = 17 / 24 = 0,70$$

$$- P(\text{Fare_cat} = \text{very cheap} | \text{survived} = 0) = 14 / 24 = 0,58$$

$$- P(\text{sibling spouse} = \text{no} | \text{survived} = 0) = 16 / 24 = 0,66$$

$$- P(\text{parent chil} = \text{no} | \text{survived} = 0) = 15 / 24 = 0,62$$

$$c) P(x | \text{survived} = 1) = 0,29 \times 0,62 \times 0,52 \times 0,41 \times 0,45 \times 0,66 = 0,0223$$

$$P(x | \text{survived} = 0) = 0,54 \times 0,58 \times 0,70 \times 0,58 \times 0,66 \times 0,62 = 0,0824$$

$$d) P(x | \text{survived} = 1) = 0,0223 \times 0,66 = 0,0147$$

$$P(x | \text{survived} = 0) = 0,0824 \times 0,33 = 0,0271$$

e) kesimpulan = survived 0 class 1

19) Data testing ke 19

SEX = male, embarked = 3, Age_cat = Adult, Fare_cat = very cheap, sibling spouse = no, Parent chil = no

$$a) P(c_i)P = (\text{survived} = 1) = 48 / 72 = 0,66$$

$$P(c_i)P = (\text{survived} = 0) = 24 / 72 = 0,33$$

$$b) P(x | c_i) \text{ untuk } i = 1, 2$$

$$- P(\text{sex} = \text{male} | \text{survived} = 1) = 14 / 48 = 0,29$$

$$- P(\text{embarked} = 3 | \text{survived} = 1) = 30 / 48 = 0,62$$

$$- P(\text{Age cat} = \text{Adult} | \text{survived} = 1) = 35 / 48 = 0,72$$

$$- P(\text{Fare cat} = \text{very cheap} | \text{survived} = 1) = 17 / 24 = 0,70$$

$$- P(\text{sibling spouse} = \text{no} | \text{survived} = 1) = 28 / 48 = 0,58$$

$$- P(\text{Parent chil} = \text{no} | \text{survived} = 1) = 22 / 48 = 0,45$$

$$- P(\text{Fore cat} = \text{no} | \text{survived} = 1) = 16 / 24 = 0,66$$

$$- P(\text{sex} = \text{female} | \text{survived} = 0) = 14 / 24 = 0,58$$

$$- P(\text{embarked} = 1 | \text{survived} = 0) = 12 / 24 = 0,5$$

$$- P(\text{Age cat} = \text{Adult} | \text{survived} = 0) = 16 / 24 = 0,66$$

$$- P(\text{Fare cat} = \text{very cheap} | \text{survived} = 0) = 32 / 48 = 0,66$$

$$- P(\text{sibling spouse} = \text{no} | \text{survived} = 0) = 18 / 24 = 0,75$$

$$c) P(x | \text{survived} = 1) = 0,29 \times 0,62 \times 0,72 \times 0,58 \times 0,45 \times 0,66 = 0,0223$$

$$P(x | \text{survived} = 0) = 0,8 \times 0,62 \times 0,70 \times 0,58 \times 0,66 \times 0,62 = 0,0824$$

$$d) P(x | \text{survived} = 1) = 0,0223 \times 0,66 = 0,0193$$

$$P(x | \text{survived} = 0) = 0,0824 \times 0,33 = 0,0271$$

$$e) \text{Kesimpulan} \quad \text{survived} = 0 \quad \text{class} = 1$$