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Factors Affecting Number of Born Children in Iraq

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ABSTRACT

Background: This paper investigates the factors that are associated with the effect of the number of born children in Iraq.
Methods: In this work, we aim to determine the contributing factors that affect the number of born children. Multiple and simple linear regression models together with two-sample t-tests were conducted to verify the potential risk factors that affect the born children which include but are not limited to smoking mother, mother age, a mother with the thyroid gland, mothers that use the medicine, preterm birth (PTB), low birth weight (LBW), high birth weight (HBW), and small for gestational age (SGA). The most important aspects of this study are investigating maternal and paternal factors affecting the number of born children in Iraq. Analyzing and identifying the risk factors that affect the number of born children and those factors that do not the number of born children are part of the contribution.
Results: The multiple regression model predicted that the maternal factors like mother weight (x_2), smoking medicine (x_8) with ($p \leq 0.05$, $p \leq 0.05$, $p \leq 0.05$, $p \leq 0.05$, $p \leq 0.05$, $p \leq 0.05$) respectively were significantly associated with the effect of the number of born children, while the mother age (x_1) and husband age (x_4) with ($p > 0.05$, and $p > 0.05$) respectively were not significant. Regarding the two-sample t-tests, the first analysis suggested that the smoking mothers significantly affected the number of born children with ($p \leq 0.05$). The second analysis shows that the mediation effect of the thyroid gland was not significant with ($p > 0.05$). The third analysis patterning the medicine of the mother did not significantly affect the number of birth children with ($p > 0.05$).
Conclusion: The results obtained from this work predicted that smoking mothers strongly contributed and play a vital role toward the factors affecting the number of born children, these findings would tackle and reduce the higher risk associated with factors that affect the number of born children in Iraq. Most of the existing literature focused on paternal risk factors affecting birth outcomes, while others were restricted to single maternal factors associated with child outcomes. In this study, we thoroughly investigate several maternal factors affecting the number of born children and paternal factors as well.

Keywords: Multiple linear regression, Two-sample t-test, Smoking mother, Maternal factors, Paternal factors, Thyroid gland.

1. Introduction

Child development in developing countries is a serious and slow unraveling of biologically fixed characteristics. Statistical records predicted that over 250 million children below the age of five years lacked social development and were unable to attain their potential cognitive due to parental' factors, poor health, deficit care, poverty, and nutrition. The majority of these children are located in Sub- Saharan Africa, Eastern Europe, and South Asia and more than 30% of the children are in one way or the other associated with at least one of the multiple risks factors including unstimulated home environment, poverty, poor health and malnutrition, which negatively alter their development potential (Grantham-McGregor, Cheung, Cueto, Glewwe, Richter, & Strupp, 2007). Exclusive breastfeeding, dietary, chronic infections, inadequate feeding practices, and parents' behaviors are other risk factors that play a dangerous role toward child development (Pem, 2015)
Breast milk is one of the fundamental rights for all infants (Bick, 1999), it is an essential food that contributes a unique nutrient composed of carbohydrates, fats, and proteins that are required for the growth and development of optimal cell function,

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children who were able to experience exclusive breastfeeding from zero to at least six months would be prevented from several health factors that render the heath and development of the child. Breast milk serves as a natural mechanism that helps children with lower cholesterol levels in the future, develop brain cognitive development, and prevent the development of obesity in the future (Pairman, Tracy, Thorogood, & Pincombe, 2010).

According to UNICEF report on child health and nutrition (2018). In Iraq, there were extremely low practices of Post-natal breastfeeding, only 19.6 % of mothers breastfeed within Post-natal, and only 25.8 % were able to breastfeed their children exclusively. Continuation of breastfeeding up to 24 months as reported was 22.7 %. Most of the infants underwent poor breastfeeding and received additional milk after birth.

Parental factors such as lack of good care within the early years of their lives contribute to the factors that affect the growth, development, and number of born children. Parental behaviors can be classified into paternal and maternal behavior, although maternal behavior such as smoking and drinking alcohol during pregnancy and after birth have severe health aftermath to both mother and children. Risk factors associated with smoking mothers are early menopause which leads to the destruction of follicles and damage the somatic cells that were developed from the ovary (Lutterodt, Sørensen, Larsen, Skouby, Andersen, & Byskov, 2009). The problems associated with early menopause due to smoking are that most of them become vulnerable to health conditions such as gynecological cancers and covid 19 which lead to death (Ibrahim, & Al-kassab, 2021)

According to research findings, children with poorer social skills at age 4 behaved more anxiously and aggressively at age 10 and more aggressively at age 14. The children who felt rejected by their parents were more likely to behave aggressively and anxiously, have trouble in school, and have a hard time connecting with others. The relationships between adoptive mothers and infants and nonadoptive mothers and infants were very similar when the infants were 5 months of age, but by the time the child was 4 years old, mother-child relationships in adoptive families were less harmonious (Friedman, Scholnick, Bender, Vandergrift, Spieker, & Hirsh, 2014).

In this paper, we considered multiple and simple regression analysis models together with two-sample t-tests that will study the factors affecting the number of born children in Iraq. The dataset constitutes the visited mother and childcare records that were collected at Babil Governorate health department, Iraq, in the year 2015. The regression models are used to predict the factors that affect the number of born children while the t-test investigates the significant factors affecting the number of born children in Iraq. Based on our findings, we discovered that smoking mothers are one of the risk factors that lead to many health issues and lack of child development. Several studies came up with some suggestions that will prevent the risk factors associated with the number of born children. The paper is organised as: Materials and Methods in Section 2. Section 3 presents the results and the discussion are provided in Section 4. We conclude in Section 5.

2. Materials and Methods

This section presents the data retrieved from the women's health center unit with the statistical analysis approach. The dataset constitutes the visited mother and childcare records that were collected at Babil Governorate health department, Iraq, in the year 2015. A simple random sample consisting of 100 women's records was taken to study the factors affecting the number of born children. The dependent variable is the number of born children, while the independent variables factors of interest include the age of female, mother weight, smoking mother, age of husband, year of marriage, number of dead children, thyroid gland, and mother taking medicine. Other factors like the number of sports hours per week, number of sleeping hours, stress due to job or house activities, financial assistance, chronic illness (breast cancer), and illegal drug use might lead to higher risk factors affecting the number of born children.

Multiple simple linear regression models and two-sample t-tests were conducted to verify the predicted and potential risk factors that affect the number of born children, respectively, which include but are not limited to smoking mothers, mother age, mothers with the thyroid gland, mothers that use the medicine, preterm birth (PTB). The statistical analysis alongside the regression models was investigated on individual independent variables while two-sample t-tests were conducted on smoking mothers, thyroid glands, and mothers taking medicine. Any *p-valu*e with a value less than 0.05 was considered statistically significant, otherwise insignificant.

We aim to suggest an estimated outcome supporting the set of variables, moreover, we want to find a model that best fits the data and validates the response variable. This case can be achieved by using the multiple simple linear regression analysis to find the predicted models and two-sample t-test models.

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Regarding our work, we consider the following multiple linear regression model.

$$y_i = \beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \beta_3 x_{i3} + \beta_4 x_{i4} + +\beta_5 x_{i5} + \beta_6 x_{i6} + \beta_7 x_{i7} + \beta_8 x_{i8} + e_i. \quad (1)$$

We also use the following simple linear regression model.

$$y_i = \beta_0 + \beta_1 x_{i1} + e_i. \quad (2)$$

where β_0, β_1, β_2, β_3, β_4, β_5, β_6, β_7, β_8 are the unknown parameters of linear regression, x_i are the independent variables, y is the dependent variable and e_i is the error term that has a normal distribution with mean o and variance σ^2.

3. Results

In this section, we make use of the data obtained from Babil Governorate health department, Iraq, to statistically analyse the factors affecting the number of born children in Iraq using multiple and simple linear regression analysis and two-sample t-tests. Simple linear regression is a commonly used procedure in statistical analysis to model a linear relationship between a dependent variable Y and an independent variable X. One of the main objectives of simple linear regression analysis is to predict the best line that fits the data.

3.1. Multiple linear regression

The mother age (x_1), mother weight (x_2), smoking mother (x_3), husband age (x_4), years of the mother (x_3), years of marriage (x_5), number of dead children (x_6), mother with the thyroid gland (x_7), and mother taking marriage (x_5), number of dead children (x_6), mother with the thyroid gland (x_7), and mother taking medicine (x_8) are express as the independent variables while the number of the born child in Iraq (y) was treated as the dependent variable. The maternal factors like mother weight (x_2), smoking medicine (x_8) with *($p \leq 0.05$, $p \leq 0.05$, $p \leq 0.05$, $p \leq 0.05$, $p \leq 0.05$, $p \leq 0.05$)* respectively were significantly associated with the effect of the number of born children, while the mother age (x_1) and husband age (x_4) with *($p > 0.05$, and $p > 0.05$)* respectively were not significant. By considering Eq. (1), we obtained the model as

$$\tilde{y} = 6.64 - 0.037x_1 - 0.0821x_2 - 0.982x_3 - 0.0011x_4 + 0.3182x_5 + 1.240x_6 + 1.840x_7 - 1.427x_8.$$

Table 1: Descriptive Statistics.

Variable	N	Mean	SE Mean	Median
y	100	3.570	0.299	2.000
x_1	100	31.030	0.838	30.00
x_2	100	68.520	0.894	67.00
x_3	100	0.3800	0.0488	0.000
x_4	100	34.170	0.829	33.50
x_5	100	12.390	0.883	9.500
x_6	100	0.3400	0.0655	0.000
x_7	100	0.0900	0.0288	0.000
x_8	100	0.3000	0.0461	0.000

Table 2: Regression Analysis for y versus coefficient constants.

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	6.64	1.79	3.71	*≤ 0.05*	
β_1	-0.037	0.0777	-0.47	*> 0.05*	16.48

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β_2	-0.082	0.0277	-2.96	≤ 0.05	2.39
β_3	-0.982	0.445	-2.21	≤ 0.05	7.92
β_4	-0.001	0.0545	-0.02	> 0.05	8.53
β_5	0.318	0.0531	5.99	≤ 0.05	1.35
β_6	1.240	0.284	4.36	≤ 0.05	2.05
β_7	1.840	0.625	2.94	≤ 0.05	1.83
β_8	-1.427	0.499	-2.86	≤ 0.05	1.25

Table: 3: Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
1.5970	73.70%	71.39%	66.62%

The R-square is 0.74 from the Table.

Table: 4: Analysis of Variance Table and Overall Significant of the Model

Model	DF	Adj SS	Adj MS	*F*-Value	*P*-Value
Regression	8	650.42	81.302	31.88	≤ 0.05
Error	91	232.093	2.5505		
Total	99	882.5			

Table 4 shows that the regression is fitting the data ($F = 32.88$, $P \leq 0.05$). The result obtained that predicted the model that best fits the data is presented is given as

$$\tilde{y} = 6.12 - 0.0857x_2 - 1.017x_3 + 0.2879x_5 + 1.204x_6 + 1.794x_7 - 1.406x_8.$$

Table 5: Descriptive Statistics

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	6.12	1.57	3.90	≤ 0.05	
β_2	-0.086	0.0256	-3.35	≤ 0.05	2.06
β_3	-1.017	0.422	-2.41	≤ 0.05	1.67
β_5	0.288	0.0240	11.98	≤ 0.05	1.78
β_6	1.204	0.275	4.38	≤ 0.05	1.28
β_7	1.794	0.611	2.94	≤ 0.05	1.22
β_8	-1.406	0.493	-2.85	≤ 0.05	2.03

Table: 6: Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
1.58348	73.58%	71.87%	67.99%

The R-square is 0.74 from the Table.

Table: 7: Analysis of Variance Table and Overall Significant of the Model

Model	DF	Adj SS	Adj MS	F-Value	P-Value

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Regression	6	649.32	108.220	43.16	≤ 0.05
Error	93	233.19	2.507		
Total	99	882.51			

Table 7 shows the best-fitted model ($F=43.16$, $p \leq 0.05$).

3.2. Simple linear regression

Mother age- Simple regression analysis between the number of born children (y) and mother age (x_1) was carried out. In the regression model outcomes with ($p \leq 0.05$), maternal age was significantly associated with the number of born children. The model is given as
Number of born children = -3.711 + 0.2346Mother age.

Mother weight- Simple regression analysis between the number of born children (y) and mother weight (x_2) was carried out. In the regression model outcomes with ($p \leq 0.05$), mother weight was significantly associated with the number of born children. The model is given as
Number of born children = -1.95 + 0.0806Weight.

Husband age- Simple regression analysis between the number of born children (y) and husband age (x_4) was carried out. In the regression model outcomes with ($p \leq 0.05$), husband age was significantly associated with the number of born children. The model is given as
Number of born children = -3.54 + 0.2080Age of husband.

Years of marriage- Simple regression analysis between the number of born children (y) and the years of marriage (x_5) was carried out. In the regression model outcomes with ($p \leq 0.05$), years of marriage were significantly associated with the number of born children. The model is given as
Number of born children = -3.54 + 0.2080Years of marriage.

The number of dead children- Simple regression analysis between the number of born children (y) and the number of dead children (x_6) was carried out. In the regression model outcomes with ($p \leq 0.05$), the number of dead children was significantly associated with the number of born children. The model is given as
Number of born children = 2.892 + 1.994Number of dead children.

Mother taking medicine- Simple regression analysis between the number of born children (y) and mother taking medicine (x_8) was carried out. In the regression model outcomes with ($p > 0.05$), mothers taking medicine were insignificantly associated with the number of born children. The model is given as
The number of born children = 3.743 – 0576Mother taking medicine.
The statistical analysis results in Table 8 were treated with Minitab.

Table 8: Regression Analysis for y versus $x_1, x_2, x_4, x_5, x_6, x_8$

Title	Term	Coefficients	Std Error	R-sq	T-value	P-value	VIF
Regression Analysis for y versus $\boldsymbol{x_1}$	Constant	-3.711	0.870		-4.27	≤ 0.05	
	β_1	0.2346	0.0271	43.40%	8.67	≤ 0.05	1.00
Regression Analysis for y versus $\boldsymbol{x_2}$	Constant	-1.95	2.26		-0.86	> 0.05	
	β_2	0.0806	0.0328	5.82%	2.46	≤ 0.05	1.00
Regression Analysis for y versus $\boldsymbol{x_4}$	Constant	-3.54	1.04		-3.39	≤ 0.05	
	β_4	0.2080	0.0297	33.34%	7.00	≤ 0.05	1.00

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Regression Analysis for y versus x_5	Constant	0.506	0.353	53.55%	0.353	> 0.05	
	β_5	0.2473	0.2473		0.0233	≤ 0.05	1.00
Regression Analysis for y versus x_6	Constant	2.892	0.304	19.12%	9.50	≤ 0.05	
	β_6	1.994	0.414		4.81	≤ 0.05	1.00
Regression Analysis for y versus x_8	Constant	3.743	0.357	0.79%	10.48	≤ 0.05	
	β_8	-0.576	0.652		0.88	> 0.05	1.00

3.3. Two-sample t-test

The two-sample t-tests were employed to investigate the factors affecting the number of born children in Iraq. The first analysis was conducted between nonsmoking mothers(x_{31}) versus smoking mothers (x_{32}), the results of the t-test rejected "smoke of mothers does not affect the number of children (H0)" and accepted "smoking mothers affect the number of children (H1)". Smoking mothers significantly affected the number of born children with *($p \leq 0.05$).*

The second analysis was conducted between mothers without thyroid gland (x_{71}) versus mothers with the thyroid gland (x_{72}), the results of the t-test accepted "the thyroid of mother does not affect the number of children (H0)" and rejected "thyroid of mother affect number of children (H1)". The mediation effect of the thyroid gland was not significant with *($p > 0.05$).*

The third analysis was conducted between the mother that does not use medicine(x_{81}) versus the mother that uses medicine(x_{82}), the results of the t-test accepted "the medicine of the mother does not affect the number of children (H0)" and rejected "medicine of the mother affect the number of children (H1)". The medicine of the mother did not significantly affect the number of birth children with *($p > 0.05$).* The two-sample t-tests analysis results were treated with Minitab and shown in Table 9.

Table 9: Two-sample t-test

	Variable	N	Mean	ST Dev	Pooled Dev	T- value	P-value	H0	H1
Two sample t-Test for x_{31} versus x_{32}	x_{31}	62	4.13	2.85	2.91	2.45	≤ 0.05	Reject	Accept
	x_{32}	38	2.66	3.02					
Two sample t-Test for x_{71} versus x_{72}	x_{71}	91	3.57	3.01	3.00	0.02	> 0.05	Accept	Reject
	x_{72}	9	3.56	2.88					
Two sample t-Test for x_{81} versus x_{82}	x_{81}	70	3.74	2.60	2.99	0.88	> 0.05	Accept	Reject
	x_{82}	30	3.17	3.75					

4. Discussion

This study focused on investigating the factors that affect the number of born children in Iraq.

Maternal risk factors associated with maternal age, maternal weight, years of marriage, number of dead children, and smoking mother were all significantly connected to the factors affecting the number of born children in Iraq, such studies are similar to our but related to socioeconomic factors exist in the literature, see (Pairman, Tracy, Thorogood, & Pincombe, 2010; Parker, Schoendorf, & Kiely, 1994). However, mothers taking medicine and mothers with thyroid glands were insignificantly related to the risk factors affecting the number of born children in Iraq.

Based on our findings, husband age significantly contributed to the parental risk factors affecting the number of born children in Iraq. Many researchers have studied, investigated, identified, and suggested paternal risk factors affecting the number of born children, see (Shapiro, Bushnik, Sheppard, KramerKaufman& Yang, 2017).

According to (Meng, & Groth, 2018), paternal factors were independently associated with adverse birth outcomes.

The model regarding mother age recommends that for any unit increment in maternal age, the number of born children increases by 0.2346, observe that the *P*-value is ≤ 0.05, and this indicates that the regression coefficient is significant to the fitted model. The constant -3.711 indicates a decrement in the number of born children which is due to related factors as in (Park, Kim, & Kang, 2002). that affect the number of born children.

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The model regarding mother weight recommends that for any unit increment in mother weight, the number of born children increases by 0.0806, observe that the *P*-value is $p \leq 0.05$, and this shows that the regression coefficient is significant to the fitted model. The constant -1.95 shows a decrement in the number of born children which is due to related factors as in (Mutsaerts, Groen, Buiter-Van der Meer, Sijtsma, Sauer, Land, & Hoek, 2014) that affect the number of born children.

The model regarding husband age recommends that for any unit increment in husband age, the number of born children increases by 0.2080, observe that the *P*-value is ≤ 0.05, and this signifies that the regression coefficient is significant to the fitted model. The constant -3.54 signifies a decrement in the number of born children which is due to related factors as in (Reichman, & Teitler, 2006) that affect the number of born children.

The model regarding husband age recommends that for any unit increment in years of marriage, the number of born children increases by 0.2473, observe that the *P*-value is ≤ 0.05, and this expresses that the regression coefficient is a significantly fitted model. The constant 0.506 expresses an increment in the number of born children.

The model regarding husband age recommends that for any unit increment in dead children, the number of born child increase by 1.994, observe that the *P*-value is ≤ 0.05, and this suggests that the regression coefficient is significant to the fitted model. The constant 2.892 suggests an increment in the number of born children which is due to related factors as in (Katz, Lee, Kozuki, Lawn, Cousens, & Blencowe, 2013; Mathews, MacDorman, & Thoma, 2015) that affect the number of born children.

The standard results for the t-test obtained from the previous section suggested that smoking mothers play a vital role and contributed immensely to the risk factors affecting the born children. Previous studies by (Kim, Yang, Lee, & Jee, 2021) also suggested that smoking is positively correlated with a reduction in the menopausal age of Korean women. Smoking mothers can be categorized into different classes, the mother that previously smoked but left smoking a long time ago, stop smoking before marriage, stop smoking after marriage, and currently smoking. Our findings are only limited to current and active smoking mothers. However, at least our results would help to address the risk factors affecting the number of born children. Moreover, it would also reduce the rate of smoking mothers. However, the factors that do not affect the number of children according to our findings are the mother with the thyroid gland and the mother taking medicine. The most important aspect of this study is investigating maternal and paternal factors affecting the number of born children in Iraq. Analyzing and identifying the risk factors that affect the number of born children from those factors that do not affect the number of the children are part of the contribution. Among all factors, smoking mothers prove to be the most dangerous risk factor affecting the number of born children in Iraq.

5. Implications for Practice

The health centers that deal with the health of wives and taking care of mothers' health can get the benefit from this research which deals with the most important factors that affect their health when they are pregnant or at the point of delivery. The following variables are very risky affecting pregnant women negatively and they should be aware of them, these variables are mother weight (abnormal), smoking, years of marriage (late marriage), number of dead children, thyroid gland, and taking medicine (during pregnancy). The ministry of health or the health center must make advertisements or awareness campaigns for pregnant women, at least it will prevent them from such harmful variables.

6. Conclusion

This paper models the factors affecting the number of born children in Iraq using multiple and simple linear regression analysis and two-sample t-tests. Based on the estimated model outcomes, we observed that some factors have contributed positively toward no risk effect while others such as smoking mothers have a risk effect on the number of born children. Most of the existing literature focused on paternal risk factors affecting birth outcomes, while others were restricted to single maternal factors associated with child outcomes. In this study, we thoroughly investigate several maternal factors affecting the number of born children and paternal factors as well. More findings, models, policies, and connections between the paternal and maternal risk factors that affect the number of born children should be an open problem for further research. Furthermore, when it comes to the application perspective, the authors in (Ibrahim, & Koksal, 2021a; Ibrahim, & Koksal, 2021b; Ibrahim, & Rababah, 2022) make use of commutativity to study the relation and the sensitivity between systems, the idea can be

extended to investigate the commutativity and sensitivity between the independent variables. All statistical analysis results were conducted using Minitab.

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Available data: The data used for this study are presented in Table 10.

Conflicting interest: There is no conflict of interest regarding this article.

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Table 10: Data of factors affecting several born children in Iraq in the year 2015.

No. of born children	Age of the female	Mother weight	Smoking mother No = 0, Yes =1	Age of husband	Year of marriage	No. of dead children	Having thyroid gland No= 0, yes =1	Taking medicine No = 0, yes = 1
Y	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8
4	28	70	0	33	14	0	0	0
1	23	65	0	28	3	0	0	0
2	25	67	0	40	6	0	0	0
1	38	71	1	41	12	1	0	1
5	41	81	0	45	25	0	0	0
1	30	88	1	40	12	0	0	1
3	22	55	1	25	7	0	0	0
6	39	64	0	39	23	1	0	0
2	20	59	0	22	3	0	0	0
1	23	68	1	26	5	1	0	1
4	30	70	0	33	9	0	0	0
8	43	78	0	48	24	2	0	0
2	21	55	0	21	3	0	0	0
4	33	71	1	34	7	0	1	0
3	25	66	0	29	6	0	0	0
1	22	57	1	23	3	0	0	0
11	44	78	1	42	29	2	0	1
10	39	67	0	42	25	0	0	0
7	36	64	0	39	17	0	0	0
1	20	54	1	25	3	0	0	0

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1	23	65	0	28	3	0	0	0
1	23	65	0	28	3	0	0	0
6	35	78	0	36	16	0	0	0
4	30	67	0	33	10	1	0	0
8	40	67	0	42	24	0	0	0
3	24	69	0	28	7	0	0	0
1	17	52	0	19	3	0	0	0
1	22	61	1	22	5	0	0	1
5	38	77	0	41	18	0	0	0
1	31	80	1	42	14	0	0	1
1	23	65	0	28	3	0	0	0
2	25	67	0	40	6	0	0	0
1	38	71	1	41	12	1	0	1
4	30	67	0	33	10	1	0	0
9	40	67	0	42	24	0	0	0
10	41	90	0	45	22	3	1	1
1	19	55	0	19	5	0	0	1
2	22	65	0	24	5	0	0	0
5	37	60	0	44	17	0	0	1
4	28	70	0	33	14	0	0	0
1	23	65	0	28	3	0	0	0
2	25	67	0	40	6	0	0	0
1	38	71	1	41	12	1	0	1
5	41	81	0	45	25	0	0	0
1	30	88	1	40	12	0	0	1
3	22	55	1	25	7	0	0	0
6	39	64	0	39	23	1	0	0
1	19	57	0	33	2	0	0	0
1	45	72	1	47	25	0	0	1
1	44	89	1	44	27	0	0	1
1	33	78	1	35	17	0	1	1
1	38	71	1	41	12	1	0	1
4	30	67	0	33	10	1	0	0
9	40	67	0	42	24	0	0	0

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1	42	80	0	42	24	1	0	0
3	33	59	0	30	8	0	0	0
9	49	67	0	53	27	0	0	1
2	22	68	0	30	4	0	0	1
2	21	55	0	21	3	0	0	0
4	33	71	1	34	7	0	1	0
2	25	66	0	29	6	0	0	0
2	22	57	1	23	3	0	0	0
10	44	78	1	42	29	2	0	1
9	39	67	0	42	25	0	0	0
2	44	89	1	44	27	0	0	1
2	33	78	1	35	17	0	1	1
1	38	71	1	41	12	1	0	1
4	30	67	0	33	10	1	0	0
8	40	67	0	42	24	0	0	0
1	23	68	1	26	5	1	1	1
4	30	70	0	33	9	0	0	0
7	43	78	0	48	24	2	0	0
1	21	55	0	21	3	0	0	0
5	33	71	1	34	7	0	1	0
3	25	66	0	29	6	0	0	0
1	22	57	1	23	3	0	0	0
12	44	78	1	42	29	2	0	1
9	39	67	0	42	25	0	0	0
2	44	89	1	44	27	0	0	1
2	33	78	1	35	17	0	0	1
1	38	71	1	41	12	1	0	1
4	30	67	0	33	10	1	0	0
6	40	67	0	42	24	0	0	0
1	23	68	1	26	5	1	1	1
4	30	70	0	33	9	0	0	0
9	43	78	0	48	24	2	0	0
1	21	55	0	21	3	0	0	0
4	33	71	1	34	7	0	1	0

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3	25	66	0	29	6	0	0	0
1	22	57	1	23	3	0	0	0
10	44	78	1	42	29	2	0	1
8	39	67	0	42	25	0	0	0
1	22	87	0	24	4	0	0	1
2	25	66	0	29	4	0	0	0
2	22	57	1	23	3	0	0	0
3	25	66	0	29	6	0	0	0
2	22	57	1	23	2	0	0	0
1	25	66	0	29	6	0	0	0
1	23	57	1	23	7	0	0	0
1	24	66	0	29	7	0	0	0