

Task 3-2

```
DESCRIPTIVES VARIABLES=age hei wt sbp dbp
/STATISTICS=MEAN STDDEV MIN MAX.
```

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
age	548	35	64	48.57	7.047
height	548	141.6	184.8	165.658	7.4407
wt	548	38	95	63.59	9.698
sbp	548	88	190	126.54	16.367
dbp	548	49	113	77.92	11.784
Valid N (listwise)	548				

CORRELATIONS

```
/VARIABLES=age sbp dbp bmi
/PRINT=TWOTAIL NOSIG
/MISSING=PAIRWISE.
```

Task 3-3

Correlations

Pearson correlation coefficient
between age and systolic blood pressure

Correlations

		age	sbp	dbp	bmi
age	Pearson Correlation	1	.260**	.226**	.083
	Sig. (2-tailed)		.000	.000	.053
	N	548	548	548	548
sbp	Pearson Correlation	.260**	1	.808**	.249**
	Sig. (2-tailed)	.000		.000	.000
	N	548	548	548	548
dbp	Pearson Correlation	.226**	.808**	1	.276**
	Sig. (2-tailed)	.000	.000		.000
	N	548	548	548	548
bmi	Pearson Correlation	.083	.249**	.276**	1
	Sig. (2-tailed)	.053	.000	.000	
	N	548	548	548	548

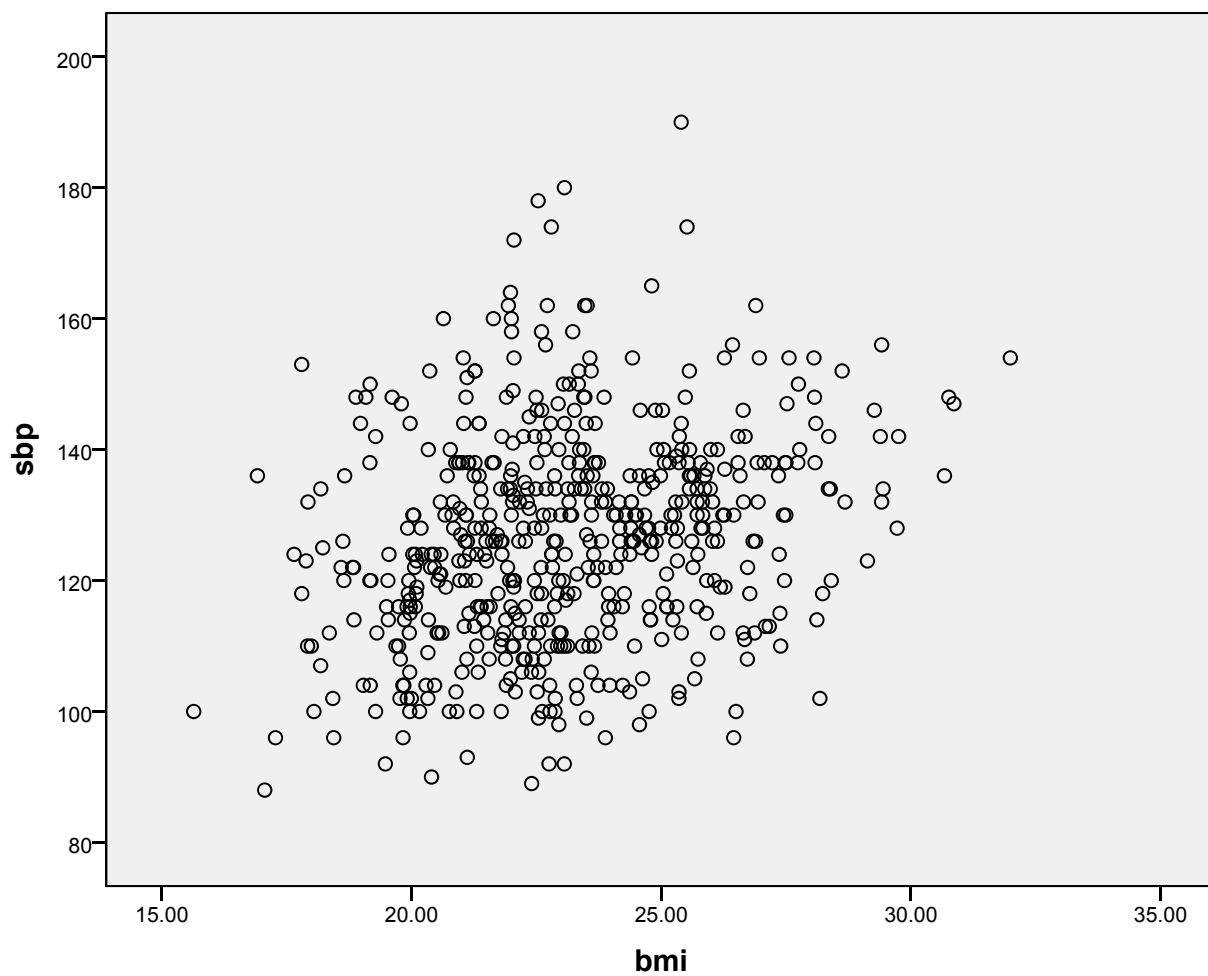
** . Correlation is significant at the 0.01 level (2-tailed).

GRAPH

```
/SCATTERPLOT (BIVAR)=bmi WITH sbp
/MISSING=LISTWISE.
```

Task 3-4

Graph



MEANS TABLES=sbp BY bmi3g
/CELLS=MEAN COUNT STDDEV.

Task 3-5 Means

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
sbp * BMI 3 groups	548	100.0%	0	0.0%	548	100.0%

Report

sbp

BMI 3 groups	Mean	N	Std. Deviation
1.00	114.78	18	17.117
2.00	125.37	394	16.384
3.00	131.47	136	14.835
Total	126.54	548	16.367

T-TEST GROUPS=sex(1 2)

/MISSING=ANALYSIS

/VARIABLES=sbp

/CRITERIA=CI (.95).

Task 3-6

T-Test

Group Statistics

	sex	N	Mean	Std. Deviation	Std. Error Mean
sbp	men	438	128.19	15.946	.762
	women	110	119.95	16.429	1.566

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	t	df
sbp	Equal variances assumed	1.287	.257	4.821	546
	Equal variances not assumed			4.735	164.383

Independent Samples Test

		t-test for Equality of Means			
		Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference
					Lower
sbp	Equal variances assumed	.000	8.249	1.711	4.888
	Equal variances not assumed	.000	8.249	1.742	4.809

Adopt this P value for two-sample t test if the Levene's test $P \geq 0.05$.

Adopt this P value for two-sample t test if the Levene's test $P < 0.05$.

Independent Samples Test

		t-test for Equality of Means
		95% Confidence Interval of the ...
		Upper
sbp	Equal variances assumed	11.610
	Equal variances not assumed	11.688

CROSSTABS

```

/TABLES=sex BY bmi3g
/FORMAT=AVALUE TABLES
/STATISTICS=CHISQ
/CELLS=COUNT
/COUNT ROUND CELL.

```

Task 3-7

Crosstabs

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
sex * BMI 3 groups	548	100.0%	0	0.0%	548	100.0%

sex * BMI 3 groups Crosstabulation

Count

		BMI 3 groups			Total
		1.00	2.00	3.00	
sex	men	12	304	122	438
	women	6	90	14	110
Total		18	394	136	548

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.963 ^a	2	.003
Likelihood Ratio	13.020	2	.001
Linear-by-Linear Association	11.905	1	.001
N of Valid Cases	548		

P value for chi-square test for independence

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 3.61.