



$$Z = \frac{\text{Value} - \mu}{\sigma}$$

$$\begin{aligned} \text{For } \$80 \\ &= \frac{80 - 84}{7.25} = \frac{-4}{7.25} = -0.55 \end{aligned}$$

⇒ Look at the prob.
of the price falling
below -0.55 in textbook.

IBM SPSS Statistics Viewer

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Output

- Log
- Regression
 - Title
 - Notes
 - Active Dataset
 - Variables Entered
 - Model Summary
 - ANOVA
 - Coefficients

b. Dependent Variable: PCINC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.797 ^a	.635	.566	288.472

a. Predictors: (Constant), SER, IND, AGR

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2312342.699	3	770780.900	9.262	.001 ^a
	Residual	1331461.851	16	83216.366		
	Total	3643804.550	19			

a. Predictors: (Constant), SER, IND, AGR
b. Dependent Variable: PCINC

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-4600.133	16298.650		-.286	.770
	AGR	40.931	163.029	1.725	.251	.805
	IND	59.688	162.892	1.623	.368	.718
	SER	59.240	162.495	1.156	.365	.720

a. Dependent Variable: PCINC

For every 1% increase in AGR, PCINC increases \$40.93
→ .05

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Age coef: 17.393

Somebody who is 40:

$$= 17.393 \times 40 = 695.72$$

YRSED: 175.317

$$= 10 \times 175.317$$

$$= 1,753.17$$

EARN75: 0.17

$$= 0.17 \times 1,000$$

$$= 170$$

$$\begin{aligned} & 3,879 + 17.393(40) + \\ & 175.317(10) - 1,445.599(0) \\ & 98.358(1) + 71.845(0) \\ & - 470.452(1) + 0.17(1,000) \\ & = \text{ANS} \end{aligned}$$

Output1 [Document1] - IBM SPSS Statistics Viewer

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NoDegree, MARRIED, YRSED, BLACK

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.201E9	8	1.501E8	3.966	.000 ^a
	Residual	2.699E10	713	37853516.70		
	Total	2.819E10	721			

a. Predictors: (Constant), EARN75, TRAIN, HISPANIC, AGE, NoDegree, MARRIED, YRSED, BLACK
b. Dependent Variable: EARN78

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3879.799	2604.431		1.490	.137
	TRAIN	806.503	467.887	.064	1.724	.085
	AGE	17.393	36.188	.018	.481	.631
	YRSED	175.317	179.581	.048	.976	.329
	BLACK	-1445.599	801.451	-.092	-1.804	.072
	HISPANIC	98.358	1046.106	.005	.094	.925
	MARRIED	71.845	652.265	.004	.110	.912
	NoDegree	-470.452	742.928	-.031	-.633	.527
	EARN75	.170	.047	.138	3.651	.000

a. Dependent Variable: EARN78

Not at 5%
> 0.05
But sig. at 10%
< 0.1

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	A	B	C	D	E	F	G	H
42			increase or lower earnings in 1978? By how much (expressed in					
43			dollars)? Is it statistically significant at the 5% level?					
44								
45			(3) You roll two six-sided dice. What is the probability that six is					
46			rolled for both die?					
47			<input type="text"/>					
48								
49								
50			(4) You roll two six-sided dice. What is the probability that either					
51			die shows a number greater than 4?					
52								
53								
54								
55			(5) Presume you've rolled a a six-sided die 5 times. So far you					
56			have rolled a 2, 6, 3, 1, and 4. What is the probability of rolling 5					
57			on your next roll?					
58								
59								
60								

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

	A	B	C	D	E	F	G	H
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(3) You roll two six-sided dice. What is the probability that six is rolled for both die?

$$\left(\frac{1}{6}\right)\left(\frac{1}{6}\right) = \frac{1}{36}$$

(4) You roll two six-sided dice. What is the probability that either die shows a number greater than 4?

$$\left(\frac{2}{6}\right) + \left(\frac{2}{6}\right) = \frac{4}{6}$$

(5) Presume you've rolled a six-sided die 5 times. So far you have rolled a 2, 6, 3, 1, and 4. What is the probability of rolling 5 on your next roll?

(6) Only 0.05% of individuals are known to have a rare, but curable disease. How many people must test before you would

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