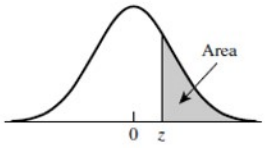
How to use Z Table

March 17, 2022 10:41 AM

Ex1: Want: $P(z > 1.23) = 0.1093$

Table 4 Normal Curve Areas
Standard normal probability in right-hand tail
(for negative values of z, areas are found by symmetry)



	Second decimal place of z									
z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
0.0	.5000	.4960	.4920	.4880	.4840	.4801	.4761	.4721	.4681	.4641
0.1	.4602	.4562	.4522	.4483	.4443	.4404	.4364	.4325	.4286	.4247
0.2	.4207	.4168	.4129	.4090	.4052	.4013	.3974	.3936	.3897	.3859
0.3	.3821	.3783	.3745	.3707	.3669	.3632	.3594	.3557	.3520	.3483
0.4	.3446	.3409	.3372	.3336	.3300	.3264	.3228	.3192	.3156	.3121
0.5	.3085	.3050	.3015	.2981	.2946	.2912	.2877	.2843	.2810	.2776
0.6	.2743	.2709	.2676	.2643	.2611	.2578	.2546	.2514	.2483	.2451
0.7	.2420	.2389	.2358	.2327	.2296	.2266	.2236	.2206	.2177	.2148
0.8	.2119	.2090	.2061	.2033	.2005	.1977	.1949	.1922	.1894	.1867
0.9	.1841	.1814	.1788	.1762	.1736	.1711	.1685	.1660	.1635	.1611
1.0	.1587	.1562	.1539	.1515	.1492	.1469	.1446	.1423	.1401	.1379
1.1	.1357	.1335	.1314	.1292	.1271	.1251	.1230	.1210	.1190	.1170
1.2	.1151	.1131	.1112	.1093	.1075	.1056	.1038	.1020	.1003	.0985
1.3	.0968	.0951	.0934	.0918	.0901	.0885	.0869	.0853	.0838	.0823
1.4	.0808	.0793	.0778	.0764	.0749	.0735	.0722	.0708	.0694	.0681

Ex1: Want: $P(z < 0.95) = 1 - P(z > 0.95)$

$= 1 - 0.1711$

$= 0.8289$

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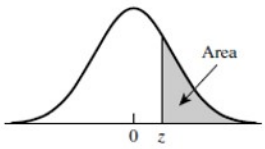

	Second decimal place of z									
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0.1	.4602	.4562	.4522	.4483	.4443	.4404	.4364	.4325	.4286	.4247
0.2	.4207	.4168	.4129	.4090	.4052	.4013	.3974	.3936	.3897	.3859
0.3	.3821	.3783	.3745	.3707	.3669	.3632	.3594	.3557	.3520	.3483
0.4	.3446	.3409	.3372	.3336	.3300	.3264	.3228	.3192	.3156	.3121
0.5	.3085	.3050	.3015	.2981	.2946	.2912	.2877	.2843	.2810	.2776
0.6	.2743	.2709	.2676	.2643	.2611	.2578	.2546	.2514	.2483	.2451
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0.9	.1841	.1814	.1788	.1762	.1736	.1711	.1685	.1660	.1635	.1611
1.0	.1587	.1562	.1539	.1515	.1492	.1469	.1446	.1423	.1401	.1379
1.1	.1357	.1335	.1314	.1292	.1271	.1251	.1230	.1210	.1190	.1170
1.2	.1151	.1131	.1112	.1093	.1075	.1056	.1038	.1020	.1003	.0985
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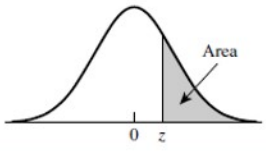
1.3	.0968	.0951	.0934	.0918	.0901	.0885	.0869	.0853	.0838	.0823
1.4	.0808	.0793	.0778	.0764	.0749	.0735	.0722	.0708	.0694	.0681

Ex11 : Want: $P(z > -1.2) = 1 - P(z > 1.2)$

$= 1 - 0.1151$

$= 0.8849$

Table 4 Normal Curve Areas
Standard normal probability in right-hand tail
(for negative values of *z*, areas are found by symmetry)



	Second decimal place of *z*									
z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
0.0	.5000	.4960	.4920	.4880	.4840	.4801	.4761	.4721	.4681	.4641
0.1	.4602	.4562	.4522	.4483	.4443	.4404	.4364	.4325	.4286	.4247
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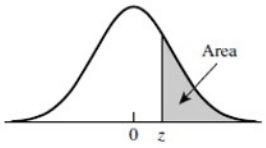
1.3	.0968	.0951	.0934	.0918	.0901	.0885	.0869	.0853	.0838	.0823
1.4	.0808	.0793	.0778	.0764	.0749	.0735	.0722	.0708	.0694	.0681

Ex11 : Want: $P(z < -0.25) = P(z > 0.25) =$ 0.4013

Table 4 Normal Curve Areas
Standard normal probability in right-hand tail
(for negative values of *z*, areas are found by symmetry)



	Second decimal place of *z*									
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1.4	.0808	.0793	.0778	.0764	.0749	.0735	.0722	.0708	.0694	.0681

Ex11: Want: $P(X \geq a) = 0.3$ $a = 0.52$

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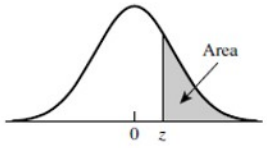
Table 4 Normal Curve Areas
Standard normal probability in right-hand tail
(for negative values of z, areas are found by symmetry)



	Second decimal place of z									
z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
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1.4	.0808	.0793	.0778	.0764	.0749	.0735	.0722	.0708	.0694	.0681

closest value to 0.3

Ex//: Want: $P(X \leq a) = 0.75$

$\Rightarrow 1 - P(X > a) = 0.75$

$\Rightarrow P(X > a) = 0.25$ $a = 0.67$

Table 4 Normal Curve Areas
Standard normal probability in right-hand tail
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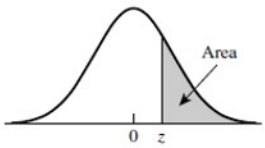

	Second decimal place of z									
z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
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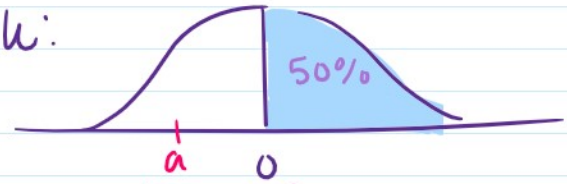
1.4	.0808	.0793	.0778	.0764	.0749	.0735	.0722	.0708	.0694	.0681

Ex//: Want: $P(X \geq a) = 0.7$

★ Try to understand this example the most!

Remark:



a must be -ve!

$P(X \geq 0) + P(a \leq X \leq 0) = 0.5 + 0.2$

$P(X \leq 0) - P(X \leq a) = 0.2$

$0.5 - P(X \leq a) = 0.2$

$P(X \leq a) = 0.3$

Use: neg version

$-a = 0.52$

$\Rightarrow$ $a = -0.52$

Table 4 Normal Curve Areas
Standard normal probability in right-hand tail
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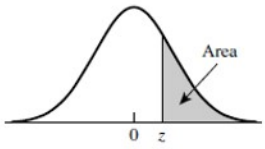

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