

## Average Rolls

On average, the various combinations of dice will yield the following results. The larger the dice used are, the greater the deviation from this average.

Base	Quality	Bonus					
		-	+d4	+d6	+d8	+d10	+d12
d12	-	6.5	9.0	10.0	11.0	12.0	13.0
d12	d2	8.0	10.5	11.5	12.5	13.5	14.5
d12	d4	9.0	11.5	12.5	13.5	14.5	15.5
d12	d6	10.0	12.5	13.5	14.5	15.5	16.5
d12	d8	11.0	13.5	14.5	15.5	16.5	17.5
d12	d10	12.0	14.5	15.5	16.5	17.5	18.5
d12	d12	13.0	15.5	16.5	17.5	18.5	19.5

## Chance to Hit Target 5

A target number of 5 is considered a cinch for a professional. Even someone with no training at all will accomplish it two thirds of the time.

Base	Quality	Bonus					
		-	+d4	+d6	+d8	+d10	+d12
d12	-	66.6%	87.5%	91.7%	93.7%	95.0%	95.9%
d12	d2	79.2%	95.9%	97.2%	97.9%	98.3%	98.6%
d12	d4	87.5%	97.9%	98.6%	99.0%	99.2%	99.3%
d12	d6	91.7%	98.6%	99.1%	99.3%	99.5%	99.5%
d12	d8	93.8%	99.0%	99.3%	99.5%	99.6%	99.7%
d12	d10	95.0%	99.2%	99.5%	99.6%	99.7%	99.7%
d12	d12	95.8%	99.3%	99.5%	99.7%	99.7%	99.8%

## Chance to Hit Target 10

A target number of 10 is considered a challenge for a professional, accomplishing it without bonuses slightly more than half the time.

Base	Quality	Bonus					
		-	+d4	+d6	+d8	+d10	+d12
d12	-	25.0%	45.8%	54.1%	62.4%	70.0%	75.0%
d12	d2	37.5%	58.3%	66.7%	74.5%	79.6%	83.0%
d12	d4	45.8%	66.7%	74.7%	80.7%	84.6%	87.1%
d12	d6	54.1%	74.7%	81.0%	85.5%	88.5%	90.3%
d12	d8	62.4%	80.7%	85.6%	89.2%	91.2%	92.7%
d12	d10	70.0%	84.6%	88.5%	91.3%	93.0%	94.2%
d12	d12	75.0%	87.2%	90.3%	92.7%	94.2%	95.1%

## Chance to Hit Target 15

A target number of 15 is considered a challenge for a hero. Without bonuses, it is impossible for the non- or marginally-trained.

Base	Quality	Bonus					
		-	+d4	+d6	+d8	+d10	+d12
d12	-		6.2%	13.9%	21.8%	30.0%	38.2%
d12	d2		16.7%	25.0%	33.4%	41.6%	50.0%
d12	d4	6.2%	25.0%	33.4%	41.7%	50.1%	57.6%
d12	d6	13.9%	33.3%	41.7%	50.0%	57.7%	64.3%
d12	d8	21.8%	41.7%	50.1%	57.9%	64.6%	70.1%
d12	d10	30.0%	50.0%	57.8%	64.6%	70.3%	75.0%
d12	d12	38.3%	57.7%	64.3%	70.2%	75.0%	78.9%

## Chance to Hit Target 20

A target number of 20 is considered a challenge for a master. Without bonuses, it is impossible for a professional.

Base	Quality	Bonus					
		-	+d4	+d6	+d8	+d10	+d12
d12	-				1.0%	5.0%	10.4%
d12	d2			0.7%	4.7%	10.4%	17.1%
d12	d4		0.5%	3.5%	8.8%	15.4%	22.6%
d12	d6		3.5%	8.1%	14.4%	21.5%	29.0%
d12	d8	1.0%	8.9%	14.5%	21.2%	28.6%	36.2%
d12	d10	5.0%	15.4%	21.5%	28.7%	36.2%	43.3%
d12	d12	10.5%	22.5%	29.0%	36.3%	43.4%	50.0%

## Chance to Hit Target 25

A target number of 25 is considered a nearly impossible. Not even a master can accomplish it without bonuses.

Base	Quality	Bonus					
		-	+d4	+d6	+d8	+d10	+d12
d12	-						1.4%
d12	d2					0.8%	3.5%
d12	d4					0.7%	2.8%
d12	d6				0.7%	2.6%	5.8%
d12	d8			0.7%	2.6%	5.8%	10.4%
d12	d10		0.8%	2.8%	5.9%	10.0%	15.3%
d12	d12		3.4%	6.5%	10.4%	15.3%	21.1%

## Contest Probability

The following table shows the percentage chance that character one's quality roll will exceed the quality roll of character two. Equivalent rolls are shown only once (for example d12+d4+d6 and d12+d6+d4 are the same, and would be listed as a d4 followed by a d6).

Char 1		Char 2, d12																									
		d2						d4						d6					d8				d10			d12	
d12		-	d4	d6	d8	d10	d12	-	d4	d6	d8	d10	d12	-	d6	d8	d10	d12	-	d8	d10	d12	-	d10	d12	-	d12
d2	-	46	29	23	19	15	13	39	23	18	15	12	10	33	15	12	9	8	27	9	7	6	23	6	5	19	4
	d4	65	46	40	34	28	24	57	39	33	28	23	20	50	28	23	19	16	43	19	15	13	37	13	11	32	9
	d6	71	54	46	40	34	30	64	47	40	34	29	25	57	34	28	24	20	50	24	20	17	43	17	14	38	12
	d8	76	60	53	47	41	36	70	53	47	40	35	31	63	40	35	30	26	57	30	25	22	50	22	18	44	15
	d10	80	66	60	53	47	42	75	60	53	47	41	36	69	47	41	36	31	62	35	31	27	56	26	23	50	20
	d12	83	71	65	59	53	47	78	65	59	53	47	42	73	53	47	42	37	67	42	37	32	61	32	28	56	25
d4	-	54	36	30	24	20	17	46	29	24	20	16	13	39	19	15	13	11	33	13	10	9	28	8	7	24	6
	d4	71	54	46	40	34	30	64	47	40	34	29	25	57	33	28	24	20	50	24	20	17	44	17	14	38	12
	d6	77	60	54	47	40	35	70	54	47	40	35	30	63	40	34	29	26	57	30	25	21	50	21	18	44	15
	d8	81	66	60	53	47	41	75	60	53	47	41	35	69	47	41	35	31	63	35	30	27	56	26	23	50	19
	d10	84	72	65	59	53	47	79	65	59	53	47	41	74	53	47	42	36	68	41	36	32	62	32	27	56	24
	d12	87	76	70	64	58	53	83	70	65	59	53	47	78	59	53	47	42	73	47	42	37	66	37	33	61	29
d6	-	61	43	36	31	26	22	54	36	30	25	21	18	47	25	21	17	15	40	17	14	12	34	12	10	30	8
	d6	81	67	60	53	47	41	76	60	53	47	41	36	69	47	41	35	31	62	35	31	26	56	26	22	50	19
	d8	85	72	66	59	53	47	80	66	60	53	47	42	74	53	47	41	36	68	41	36	32	62	31	27	56	24
	d10	87	76	71	65	59	53	83	71	65	59	53	47	78	59	53	47	42	73	47	42	37	67	37	32	61	29
	d12	89	80	75	70	64	58	86	75	70	64	58	53	82	64	58	53	47	77	53	47	42	71	42	38	66	33
d8	-	67	50	43	37	32	27	60	43	37	32	27	23	54	31	26	22	19	46	22	19	16	41	15	13	35	11
	d8	88	77	71	65	59	53	84	71	65	59	53	47	78	59	53	47	42	73	47	42	37	67	37	32	61	28
	d10	90	80	75	70	64	58	86	75	70	64	59	53	82	64	58	53	47	77	52	47	42	72	42	37	66	33
	d12	92	83	79	74	68	63	89	79	74	69	63	58	85	69	64	58	52	81	58	53	47	76	47	43	70	38
d10	-	72	57	50	44	38	33	66	50	43	38	32	28	59	38	32	28	24	53	28	24	20	47	20	17	41	15
	d10	92	84	79	74	69	63	89	79	74	69	63	58	85	69	64	58	53	81	58	53	47	76	47	43	71	38
	d12	93	86	82	78	73	68	91	82	78	73	68	62	87	73	68	63	57	83	63	58	53	79	52	47	74	43
d12	-	77	62	56	50	44	39	71	56	50	44	38	34	65	44	39	34	29	59	34	29	25	53	25	22	47	19
	d12	94	88	85	81	76	71	92	85	81	77	72	67	89	77	72	67	62	86	67	62	57	82	57	52	78	48