

## Rode Scope Ratios

Depth in feet <sup>1</sup>	Rode length for 3:1 scope	Rode length for 4:1 scope	Rode length for 5:1 scope	Rode length for 6:1 scope	Rode length for 7:1 scope	Rode length for 8:1 scope	Rode length for 9:1 scope	Rode length for 10:1 scope
10	30	40	50	60	70	80	90	100
11	33	44	55	66	77	88	99	110
12	36	48	60	72	84	96	108	120
13	39	52	65	78	91	104	117	130
14	42	56	70	84	98	112	126	140
15	45	60	75	90	105	120	135	150
16	48	64	80	96	112	128	144	160
17	51	68	85	102	119	136	153	170
18	54	72	90	108	126	144	162	180
19	57	76	95	114	133	152	171	190
20	60	80	100	120	140	160	180	200
21	63	84	105	126	147	168	189	210
22	66	88	110	132	154	176	198	220
23	69	92	115	138	161	184	207	230
24	72	96	120	144	168	192	216	240
25	75	100	125	150	175	200	225	250
30	90	120	150	180	210	240	270	300
35	105	140	175	210	245	280	315	350
40	120	160	200	240	280	320	360	400
45	135	180	225	270	315	360	405	450
50	150	200	250	300	350	400	450	500
55	165	220	275	330	385	440	495	550
60	180	240	300	360	420	480	540	600
65	195	260	325	390	455	520	585	650
70	210	280	350	420	490	560	630	700
75	225	300	375	450	525	600	675	750
80	240	320	400	480	560	640	720	800
85	255	340	425	510	595	680	765	850
90	270	360	450	540	630	720	810	900
95	285	380	475	570	665	760	855	950
100	300	400	500	600	700	800	900	1000
<sup>1</sup> Important to note that the depth is from the bow roller to the seabed.								
It is not just the depth of the water.								
The “depth” includes the height of the roller on the vessel to seabed.								
The tide needs to be noted when you set the anchor. Rode length might need to be adjusted according to the height of the tide during the time at anchor.								

Table 1

Depth of water in feet <sup>1</sup>	Rode length for 3:1 scope	Rode length for 4:1 scope	Rode length for 5:1 scope	Rode length for 6:1 scope	Rode length for 7:1 scope	Rode length for 8:1 scope	Rode length for 9:1 scope	Rode length for 10:1 scope
7	39	52	65	78	91	104	117	130
8	42	56	70	84	98	112	126	140
9	45	60	75	90	105	120	135	150
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11	33	68	85	102	119	136	153	170
12	36	72	90	108	126	144	162	180
13	39	76	95	114	133	152	171	190
14	42	80	100	120	140	160	180	200
15	45	84	105	126	147	168	189	210
16	48	88	110	132	154	176	198	220
17	51	92	115	138	161	184	207	230
18	54	96	120	144	168	192	216	240
19	57	100	125	150	175	200	225	250
20	60	104	130	156	182	208	234	260
21	63	108	135	162	189	216	243	270
22	66	112	140	168	196	224	252	280
23	69	116	145	174	203	232	261	290
24	72	120	150	180	210	240	270	300
25	75	124	155	186	217	248	279	310
30	90	144	180	216	252	288	324	360
35	105	164	205	246	287	328	369	410
40	120	184	230	276	322	368	414	460
45	135	204	255	306	357	408	459	510
50	150	224	280	336	392	448	504	560
55	165	244	305	366	427	488	549	610
60	180	264	330	396	462	528	594	660
65	195	284	355	426	497	568	639	710
70	210	304	380	456	532	608	684	760
75	225	324	405	486	567	648	729	810
80	240	344	430	516	602	688	774	860
85	255	364	455	546	637	728	819	910
90	270	384	480	576	672	768	864	960
95	285	404	505	606	707	808	909	1010
100	300	424	530	636	742	848	954	1060
<b><sup>1</sup> Important to note that the depth is from the bow roller to the seabed.</b>								
<b>It is not just the depth of the water.</b>								
<b>The “depth” includes the height of the roller on the vessel to sea level in the formula.</b>								
<b>The tide needs to be noted when you set the anchor. Rode length might need</b>								
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19	78	104	130	156	182	208	234	260
20	81	108	135	162	189	216	243	270
21	84	112	140	168	196	224	252	280
22	87	116	145	174	203	232	261	290
23	90	120	150	180	210	240	270	300
24	93	124	155	186	217	248	279	310
25	96	128	160	192	224	256	288	320
30	111	148	185	222	259	296	333	370
35	126	168	210	252	294	336	378	420
40	141	188	235	282	329	376	423	470
45	156	208	260	312	364	416	468	520
50	171	228	285	342	399	456	513	570
55	186	248	310	372	434	496	558	620
60	201	268	335	402	469	536	603	670
65	216	288	360	432	504	576	648	720
70	231	308	385	462	539	616	693	770
75	246	328	410	492	574	656	738	820
80	261	348	435	522	609	696	783	870
85	276	368	460	552	644	736	828	920
90	291	388	485	582	679	776	873	970
95	306	408	510	612	714	816	918	1020
100	321	428	535	642	749	856	963	1070

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It is not just the depth of the water.

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The tide needs to be noted when you set the anchor. Rode length might need to be adjusted according to the height of the tide during the time at anchor.

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23	93	124	155	186	217	248	279	310
24	96	128	160	192	224	256	288	320
25	99	132	165	198	231	264	297	330
30	114	152	190	228	266	304	342	380
35	129	172	215	258	301	344	387	430
40	144	192	240	288	336	384	432	480
45	159	212	265	318	371	424	477	530
50	174	232	290	348	406	464	522	580
55	189	252	315	378	441	504	567	630
60	204	272	340	408	476	544	612	680
65	219	292	365	438	511	584	657	730
70	234	312	390	468	546	624	702	780
75	249	332	415	498	581	664	747	830
80	264	352	440	528	616	704	792	880
85	279	372	465	558	651	744	837	930
90	294	392	490	588	686	784	882	980
95	309	412	515	618	721	824	927	1030
100	324	432	540	648	756	864	972	1080
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