

RATIOS STRETCH	WARM-UP 2	WARM-UP 6	WARM-UP 10	WORKOUT 3
1. 3/5	41. 4	81. 16	121. 30	161. 105/512
2. √3/2	42. 1*	82. 78/11	122. 0	162. 80
3. 1/2	43. 7/12	83. 39	123. 54π	163. 5
4. 8/25	44. 5	84. 35	124. 13	164. 103,000
5. 76	45. 1050	85. 5	1251	165. 0.57
6. 20	46. 74	86. 0	126. 4	166. 16.7
7. 44	47. 240	87. 126	127. (-12, 5)	167. 16/15
8. 95	48. 105	88. 5	128. 42	168. 112
9. 85.5	49. 540	89. 2	129. 400	169. 11
10. 5/18	50. 1	90. 23	130. 17	170. 5
VENN DIAGRAMS	WARM-UP 3	WARM-UP 7	WARM-UP 11	WORKOUT 4
STRETCH	51. 75 or 75.00	91. 14,400	131. 95/6	171. 24.3
11. 2	52. 7/6	92. 5	132. 49/2	172. 66
12. 20	53. 5	93. 27	133. 1/10	173. 13.7
13. 7	54. 16 or 16.00	94. 600 or 600.00	134. 6	174. 491.67
14. 18	55. 10	95. 20	135. 144	175. 160 or 160.00
15. 72	56. –23	96. 66	136. 2	176. 2.97
16. 468	57. 18	97. 2.5×10^3	137. 379	177. 247.7
17. 13	58. 70	98. 6	138. 13	178. 51
18. 39	59. 28	99. 10	139. 211	179. 27
19. 195	60. 2/5	100. 14	140. 125	180. 0.25
20. 11/24	001 270	1001 11	1101 120	1001 0120
201 11/21	WARM-UP 4	WARM-UP 8	WORKOUT 1	WORKOUT 5
CLOCKS STRETCH	61. 10/3	101. 30	141. 2020	181. 28
21. 8:24	62. 2	102. 60	142. 25.8	182. 17,403
22. 8:49	63. 120	103. 8	143. 18.3	183. 86 [°]
23. 21	64. 10	104. 11	144. 24	184. 210
24. 28	65. 6	105. 500	145. 69.3	185. 17.2
25. 115	66. 15/16	106. 12	146. 7.9	186. 45
26. 6:33	67. 1/17	107. 17	147. 12	187. 37.5
07 13 "	68. 119	108. 230		188. 6
	68. 119 69. 37	108. 230 109. 74	148. 14	188. 6 189. 26
27. $13\frac{9}{11}$ 28. $7\frac{7}{11}$	69. 37	109. 74	148. 14 149. 3.5	189. 26
			148. 14	
28. 7 ⁷ / ₁₁	69. 37	109. 74	148. 14 149. 3.5	189. 26
28. 7 ⁷ / ₁₁ 29. 5/16 30. 630	69. 37 70. 24	109. 74 110. 9,182,736	148. 14 149. 3.5 150. 200	189. 26 190. 867
28. 7 $\frac{7}{11}$ 29. 5/16 30. 630 WARM-UP 1	69. 37 70. 24 WARM-UP 5	109. 74 110. 9,182,736 WARM-UP 9 111. 3	148. 14 149. 3.5 150. 200 WORKOUT 2 151. 45	189. 26 190. 867 WORKOUT 6 191. 10
28. 7 $\frac{7}{11}$ 29. 5/16 30. 630 WARM-UP 1 31. 15/16	69. 37 70. 24 WARM-UP 5 71. 39/4	109. 74 110. 9,182,736 WARM-UP 9 111. 3 112. 20	148. 14 149. 3.5 150. 200 WORKOUT 2 151. 45 152. 500	189. 26 190. 867 WORKOUT 6 191. 10 192. 30
28. 7 $\frac{7}{11}$ 29. 5/16 30. 630 WARM-UP 1 31. 15/16 32. 5	69. 37 70. 24 WARM-UP 5 71. 39/4 72. 312 73. 4	109. 74 110. 9,182,736 WARM-UP 9 111. 3 112. 20 113. 18	148. 14 149. 3.5 150. 200 WORKOUT 2 151. 45 152. 500 153. 16	189. 26 190. 867 WORKOUT 6 191. 10 192. 30 193. 17
28. 7 $\frac{7}{11}$ 29. 5/16 30. 630 WARM-UP 1 31. 15/16 32. 5 33. 3/40	69. 37 70. 24 WARM-UP 5 71. 39/4 72. 312 73. 4 74. 5/6	109. 74 110. 9,182,736 WARM-UP 9 111. 3 112. 20 113. 18 114. 12√3	148. 14 149. 3.5 150. 200 WORKOUT 2 151. 45 152. 500 153. 16 154. 0.049	189. 26 190. 867 WORKOUT 6 191. 10 192. 30 193. 17 194. 1/24
28. 7 $\frac{7}{11}$ 29. 5/16 30. 630 WARM-UP 1 31. 15/16 32. 5 33. 3/40 34. 21	69. 37 70. 24 WARM-UP 5 71. 39/4 72. 312 73. 4 74. 5/6 75. 7.2	109. 74 110. 9,182,736 WARM-UP 9 111. 3 112. 20 113. 18 114. $12\sqrt{3}$ 115. 31	148. 14 149. 3.5 150. 200 WORKOUT 2 151. 45 152. 500 153. 16 154. 0.049 155. 434	189. 26 190. 867 WORKOUT 6 191. 10 192. 30 193. 17 194. 1/24 195. 57
28. 7 $\frac{7}{11}$ 29. 5/16 30. 630 WARM-UP 1 31. 15/16 32. 5 33. 3/40 34. 21 35. 23	69. 37 70. 24 WARM-UP 5 71. 39/4 72. 312 73. 4 74. 5/6 75. 7.2 76. 1728	109. 74 110. 9,182,736 WARM-UP 9 111. 3 112. 20 113. 18 114. $12\sqrt{3}$ 115. 31 116. 8	148. 14 149. 3.5 150. 200 WORKOUT 2 151. 45 152. 500 153. 16 154. 0.049 155. 434 156. 17.3	189. 26 190. 867 WORKOUT 6 191. 10 192. 30 193. 17 194. 1/24 195. 57 196. 76.4
28. 7 $\frac{7}{11}$ 29. 5/16 30. 630 WARM-UP 1 31. 15/16 32. 5 33. 3/40 34. 21	69. 37 70. 24 WARM-UP 5 71. 39/4 72. 312 73. 4 74. 5/6 75. 7.2 76. 1728 77. E-W or	109. 74 110. 9,182,736 WARM-UP 9 111. 3 112. 20 113. 18 114. 12√3 115. 31 116. 8 117. 7/2	148. 14 149. 3.5 150. 200 WORKOUT 2 151. 45 152. 500 153. 16 154. 0.049 155. 434 156. 17.3 157. 0.44	189. 26 190. 867 WORKOUT 6 191. 10 192. 30 193. 17 194. 1/24 195. 57 196. 76.4 197. 8
28. 7 $\frac{7}{11}$ 29. 5/16 30. 630 WARM-UP 1 31. 15/16 32. 5 33. 3/40 34. 21 35. 23	69. 37 70. 24 WARM-UP 5 71. 39/4 72. 312 73. 4 74. 5/6 75. 7.2 76. 1728 77. E-W or East-West	109. 74 110. 9,182,736 WARM-UP 9 111. 3 112. 20 113. 18 114. 12√3 115. 31 116. 8 117. 7/2 118. 45	148. 14 149. 3.5 150. 200 WORKOUT 2 151. 45 152. 500 153. 16 154. 0.049 155. 434 156. 17.3 157. 0.44 158. 24	189. 26 190. 867 WORKOUT 6 191. 10 192. 30 193. 17 194. 1/24 195. 57 196. 76.4 197. 8 198. 81.5
28. 7 $\frac{7}{11}$ 29. 5/16 30. 630 WARM-UP 1 31. 15/16 32. 5 33. 3/40 34. 21 35. 23 36. 47.94	69. 37 70. 24 WARM-UP 5 71. 39/4 72. 312 73. 4 74. 5/6 75. 7.2 76. 1728 77. E-W or East-West 78. 45	109. 74 110. 9,182,736 WARM-UP 9 111. 3 112. 20 113. 18 114. 12√3 115. 31 116. 8 117. 7/2 118. 45 119. 51	148. 14 149. 3.5 150. 200 WORKOUT 2 151. 45 152. 500 153. 16 154. 0.049 155. 434 156. 17.3 157. 0.44 158. 24 159. 7	189. 26 190. 867 WORKOUT 6 191. 10 192. 30 193. 17 194. 1/24 195. 57 196. 76.4 197. 8 198. 81.5 199. 29
28. 7 $\frac{7}{11}$ 29. 5/16 30. 630 WARM-UP 1 31. 15/16 32. 5 33. 3/40 34. 21 35. 23 36. 47.94 37. 765,434,567	69. 37 70. 24 WARM-UP 5 71. 39/4 72. 312 73. 4 74. 5/6 75. 7.2 76. 1728 77. E-W or East-West	109. 74 110. 9,182,736 WARM-UP 9 111. 3 112. 20 113. 18 114. 12√3 115. 31 116. 8 117. 7/2 118. 45	148. 14 149. 3.5 150. 200 WORKOUT 2 151. 45 152. 500 153. 16 154. 0.049 155. 434 156. 17.3 157. 0.44 158. 24	189. 26 190. 867 WORKOUT 6 191. 10 192. 30 193. 17 194. 1/24 195. 57 196. 76.4 197. 8 198. 81.5

* The plural form of the units is always provided in the answer blank, even if the answer appears to require the singular form of the units. COACHES: FIND PROBLEMS, ANSWERS,
SOLUTIONS + PROBLEM INDEX FOR PROBLEMS
201-250 AT WWW.MATHCOUNTS.ORG/COACHES!

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