

ANSWERS TO PLAYBOOK PROBLEMS



Algebraic Expressions + Equations

38. 0
42. 32
47. $9/2$
51. -1009
52. 12
71. 17
73. 120
80. 1
81. 1320
89. 315
91. 12
99. 3
101. 68
120. 148
142. 58
150. 8
176. 33
185. 33
199. 26
202. 1.01
209. 1300
210. 2
217. 20 or 20.00
218. 4
224. 28



Coordinate Geometry

79. 4
93. $5\sqrt{2}$
112. $8/11$
166. $(11\sqrt{10})/8$
203. 28
238. -1516.75
249. $3\sqrt{7}$



General Math

31. -19
33. 2112
35. $60\sqrt{(14)}$
36. 18
37. $1/2$
39. 452
44. 600
62. 900
88. 80
100. 1000
114. $100\sqrt{10}$
124. 5
174. 135



Logic

83. 5
92. 160
131. 20
145. 0
167. 45
216. 3
235. 72



Measurement

40. 47
49. 16
50. 4π
55. $2\sqrt{5}$
67. 432
96. $\sqrt{3}/4$
126. $6\sqrt{7}$
132. 76
143. 241
155. 3
172. 2.8
181. 100
183. 62.5
198.
127,750,000



Number Theory

45. 4
56. $13/18$
59. 1,000,000
68. 4
69. 27
78. 63
84. 3.81
109. 173
110. $1/4$
111. $79/111$
119. 85
121. 23
130. 30
134. 25
139. 18
148. 12
151. 5
153. 53
156. 9490
161. 30
193. 34
194. 44
201. 75
227. 2996
229. 11
231. 45
233. Thursday
237. 128
241. 144
246. 11



Percents + Fractions

48. 25
77. 15
86. $3/8$
137. 350
179. 5000 or 5000.00
184. 55.71
188. 0.162
195. 14
200. 70
205. 35.7
222. 25
239. 225 or 225.00



Plane Geometry

32. 14
43. 81
53. $6/25$
61. $1/2$
66. 3π
82. 128
106. $11/18$
107. $\sqrt{2} - 1$
113. $17/24$
118. 36
123. $3/8$
133. $3/8$



**Plane
Geometry
(continued)**

136. 132
149. $10 + 2\sqrt{35}$ or $2\sqrt{35} + 10$
152. $18\sqrt{3}$
158. 105
160. 25
163. $1/9$
170. $1/27$
178. 144
187. 250
192. 45
197. 150π
204. 0.924
211. 3375
215. $64 + 128\sqrt{2}$ or $128\sqrt{2} + 64$
221. 37.9
225. 1.47
232. 4
236. 78
240. 24π
245. 4.7
250. 87



**Probability,
Counting +
Combinatorics**

1. 15.38
2. $1/4$
3. 0.2
4. $2/5$
5. $3/8$
6. 50



**Probability,
Counting +
Combinatorics
(continued)**

7. 20
8. $9/16$
9. $1/5$
10. 0.17
34. $1/221$
46. $5/18$
64. 21
75. 4
76. $1/3$
85. 126
95. $7/36$
103. 144
104. $1/7$
116. 180
125. 6720
135. $175/256$
140. $8/27$
144. 300
146. 81
154. 91
159. 17
168. 140
171. $3/8$
189. 3
196. 70
206. $1/3$
207. $32/45$
213. 1,036,800
226. 52
234. $8/51$
242. 816
247. 26
248. 195



**Problem
Solving (Misc.)**

54. 10,227
58. 348
70. 48
72. 6
128. 105
157. 13
162. 52
180. 87,672
212. 57



**Proportional
Reasoning**

21. $2 \frac{2}{3}$
22. 2:35
23. 880
24. 3
25. 2
26. 3
27. $7\frac{1}{2}$
28. $1\frac{1}{4}$
29. 5
30. $5/8$
41. 5
63. 50
90. $1/4$
102. 40
108. 4
117. 6
122. 100
127. 9
169. 7
173. 263



**Proportional
Reasoning
(continued)**

182. 2.5
220. $4/7$
228. 6
244. 5



**Sequences,
Series +
Patterns**

11. 1480
12. 423
13. 1457
14. 36
15. 1365
16. 2601
17. 2
18. $4/3$
19. 125
20. 243
94. 161
97. 9
115. 305
141. 867
164. 1632
165. $3/5$
191. 1530
214. 11
243. 1729



**Solid
Geometry**

60. $4\frac{1}{20}$
74. 9
129. $6/\pi$
177. 14
190. 67.5
208. 30
219. 50
230. 360



**Statistics +
Data**

57. 25
65. 191
87. 100
98. 11
105. 81
138. 28
147. 58
175. 30.4
186. 383
223. 7.6