

January Regional

1. $A = 30$; $B = 90$; $C^2 = 16 + 8\sqrt{2}$; $D = \sqrt{3}$; **$16 + 8\sqrt{2}$**
2. $A = 38$; $B = 90$; $C = 15$; $D = 15/8$; **$296/15$**
3. **60**
4. $A = 14$; $B = 43$; $C = 68.5$; **125.5**
5. **$28 + 8\sqrt{5}$**
6. **-21**
7. $A = 4 + 2\sqrt{2}$; $B = 4 + 4\sqrt{2}$; $C = 12 + 2\sqrt{2}$; **$6\sqrt{2} + 2$**
8. **$(1 + \sqrt{5})/2$**
9. $A = 12\sqrt{5}/5$; $B = 24\sqrt{17}/17$; $C = 3\sqrt{2}$; **$6\sqrt{170}/17$**
10. **36**
11. **1**
12. **42**
13. **61,740**
14. $A = 55$; $B = 41$; $C = -10$; **106**
15. **756**

Geometry Team Answers