



Math Olympiad and Problem Solving Programs  
F120 - Intermediate Problem Solving  
Problem Set 21.1 - Review

Name:

Date:

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1.  $\boxed{2162}$
2. If Charlie has 598 fewer Asian stamps than European stamps, and he has 1485 European stamps, then he has  $1485 - 598 = 887$  Asian stamps. So he has  $887 + 1485 = \boxed{2372}$  stamps in all.
3.  $\boxed{63}$
4.  $\boxed{79}$
5.  $\boxed{1491}$
6.  $\boxed{63}$
7. The route of Road A and then Road B is  $7\text{ km } 13\text{ m} + 8\text{ km } 712\text{ m} = 15\text{ km } 725\text{ m}$  long. To subtract Road C's length from Road A+B's length, we need to carry a km over into the m section. Since  $1\text{ km} = 1000\text{ m}$ , we can write  $21\text{ km } 67\text{ m} = 20\text{ km } 1067\text{ m}$ . Now we subtract:  $20\text{ km } 1067\text{ m} - 15\text{ km } 725\text{ m} = \boxed{5\text{ km } 342\text{ m}}$ .
8. If each cake weighs 98 g, then the 8 cakes weigh  $8 \times 98 = 784\text{ g}$ . So we know  $8\text{ cakes} + \text{box} = 838$  and  $8\text{ cakes} = 784$ . So the box must be  $838 - 784 = \boxed{54\text{ g}}$ .
9. Note:  $16\text{ oz} = 1\text{ lb}$ . 2 bags of flour weighs  $10 \times 2 = 20\text{ oz}$ , and 4 bags of salt weighs  $4 \times 4 = 16\text{ oz}$ . So altogether, the weight is  $20 + 16 = 36\text{ oz}$ . We can write 36 as  $16 + 16 + 4$ , so 36 ounces is equal to 2 pounds plus an extra 4 oz, or  $\boxed{2\text{ lb } 4\text{ oz}}$ .
10.  $\boxed{72}$