



Math Olympiad and Problem Solving Programs
E210 - Introductory Math Competitions
Problem Set 1.2 - AMC 8 Integers

Name:

Date:

1. B
2. $\frac{5}{3} = 1.67$ and $2\pi = 6.28$. Then count how many numbers are between 1.7 and 6.3: 2, 3, 4, 5, 6. Thus the answer is 5 = D
3. We know that 0 is not the minimum, because negative numbers are less than zero. We cannot use $-8 \times -6 \times 7$ because the negatives cancel to make a positive number. Thus we need the largest negative number and the two largest positive numbers to leave a negative product. So we choose $-8 \times 7 \times 5 = -280$. B
4. D
5. E
6. The smallest prime factor possible is the number 2, so we will first look for an even number. The only even number is 58. C
7. List out the 2-digit numbers whose digits add up to 7: 70, 61, 16, 52, 25, 43, 34. Note that 07 doesn't count because 7 is a 1-digit number. Thus there are 7 such numbers. B
8. The next palindrome year after 2002 is 2112. $2 \times 1 \times 1 \times 2 = 4$. B
9. First, figure out how many weeks are in 706 days: $706 = 700 + 6$. Thus there are 100 weeks of 7 days, plus 6 days left over. Six days from Saturday is Friday. C
10. D