



Math Olympiad and Problem Solving Programs
E120 - Honors Algebra Problem Solving
Problem Set 11.2 - SAT Proportions

Name:

Date:

1. E
2. A
3. 210
4. D
5. Inversely proportional means Factor A = $\frac{k}{\text{Factor B}}$ for some k . So here we have $\% = \frac{k}{\#}$. We are given 80% of people respond to 8th question, so we can set up our equation. $80 = \frac{k}{8}$, so $k = 640$. Now we must solve the equation of $x\% = \frac{k}{30} = \frac{640}{30} = 21\frac{1}{3}$ D
6. D
7. Each glass contains $\frac{c}{g}$ ounces of juice. Then you would need $n \times \frac{c}{g} = \frac{nc}{g}$ ounces of juice to fill n glasses of juice. Since each bottle contains c ounces of juice, you need $\frac{nc}{g} \div c = \frac{n}{g}$ bottles. D
8. B
9. $\frac{5}{9}$
10. 45