

Section 2 – Topic 3

Solving Equations

1. Solve each equation. For each step, identify the property used.

Part A: $18 = 6(2x - 8)$

Part B: $8 + 3b = -13$

Part C: $\frac{x-3}{4} = 12$

Part D: $14 + 3n = 8n - 3(n - 4)$

Part E: $22x + 11 = 4x - 7$

2. During summer vacation, you charge people \$8 per hour for swimming lessons and a \$20 registration fee. If you make \$52 one day, how many hours did you spend teaching lessons?

3. Lacoste Middle School surveyed its student population about their favorite mobile apps. The 786 students who listed Facebook as their favorite app represented 32 fewer students than two times the number of students who listed Instagram as their favorite app. How many students listed Instagram as their favorite app?

4. The 2015 senior class from Puma High School raised funds for an end-of-the-year party at Club Sizzle. It costs \$4,000 to rent out Club Sizzle plus \$20 per student for food and drinks. If the senior class raised \$11,000, how many students can attend the end of year party?

5. Alex sells cars at Keith Palmer Ford. He earns \$400 a week plus \$150 per car he sells. If he earned \$1450 last week, how many cars did he sell?