

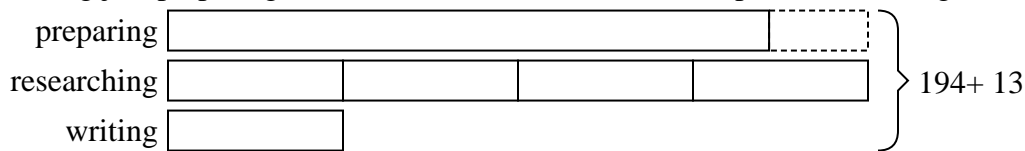




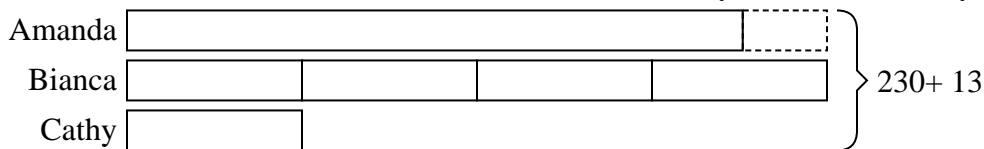
Solve each problem using a tape diagram.

Answers

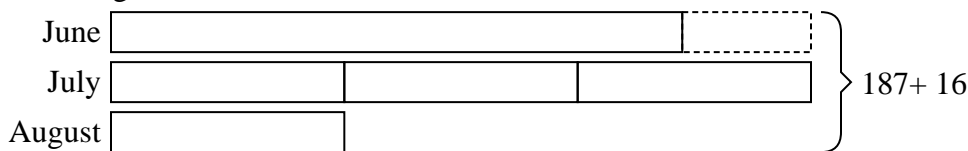
- 1) Janet spent 194 minutes working on her report. She spent 4 times as long researching the topic as she did writing the paper. She also spent 13 minutes less than the time she spent researching just preparing material. How much time did she spend researching?

1. **92**2. **27**3. **29**4. **47**

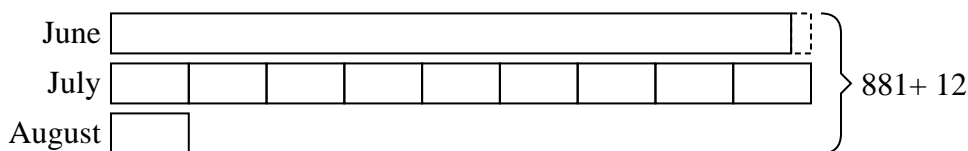
- 2) Amanda, Bianca and Cathy bake 230 muffins. Bianca bakes 4 times as many muffins as Cathy. Amanda bakes 13 fewer muffins than Bianca. How many muffins did Cathy bake?

5. **108**

- 3) Henry earned \$187 mowing lawns over the summer. In July he earned 3 times as much as he did in August. And in June he earned 16 dollars fewer than in July. How much money did he earn in August?



- 4) Katie sent 881 text messages over the summer. In July she sent 9 times as many as she did in August. And in June she sent 12 fewer than in July. How many texts did she send in August?



- 5) Haley, her brother and her sister pooled their money to buy a console and some games. Together they had \$240. Haley gave $\frac{1}{3}$ as much as her sister and her brother gave \$12 fewer than her sister. How much did her sister contribute?

