5-1. Strategies will vary, see the "Suggested Lesson Activity" for possibilities.

5-2. See below:

a. Strategies may vary: subdivide the line segment into twenty equal parts; then each of these represent 5% and 3 of these represent 15%.

b. 3g should go with 15% because it represents the amount in one serving.

c. 20g

5-3. See below:

a. 3g is the part in one serving of Cheesy Mac. 20g represents the total saturated fat you should consume in a day.

b. Sample justification: $\frac{15}{100} = \frac{3}{20} = 0.15$ or $\frac{15}{100} \cdot \frac{0.2}{0.2} = \frac{3}{20}$

5-4. See below:

a. See the "Suggested Lesson Activity" for completed diagram.

b. 25. $\frac{16}{100} = \frac{4}{?} \cdot \frac{16}{100} \cdot \frac{1/4}{1/4} = \frac{4}{25}$

c. 84%. $\frac{21}{25} \cdot \frac{4}{4} = \frac{84}{100}$

d. The total daily grams of fiber and the portion and percentage from other foods are missing. See the "Suggested Lesson Activity" notes for sample solution diagram.

e. Possible response: $\frac{12}{25} \cdot \frac{4}{4} = \frac{48}{100}$

5-5. See below:

a. Because 10 parts of 6 mg make a complete 60 mg.

b. The shaded portion should be labeled 6 mg on top and 10% below; the rest of the number line should be labeled 54 mg on top and 90% below; above the 100%, it should be labeled 60 mg.

c. The 6 mg is the part labeled above the diagram, and the 60 mg is the whole. The ratio $\frac{10}{100}$ would be equal.

d. Answers vary. $\frac{54 \text{ mg}}{60 \text{ mg}} = \frac{90}{100}$ or $\frac{60 \text{ mg}}{60 \text{ mg}} = \frac{100}{100}$

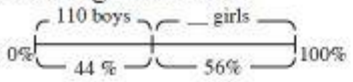
5-6. See below:

a. Answers vary: students should note that there are 3 parts blue and 12 parts red, but some may also say there are 15 parts altogether.

b. 20%. 80%. Possible justification: The segment representing 12 parts can be divided into four equal portions of 3 parts each, so that the full segment is divided into 5 equal portions; $100\% \div 5 = 20\%$.

5-7. See below:

a. See diagram below.



b. Sample reasoning: if 56% of students are girls, then 44% are boys; $\frac{44}{100} \cdot \frac{2.5}{2.5} = \frac{110}{?}$, 250 total students.

c. One way to reason: 56% are girls so 44% are boys; if 44% of the school is 110 students, then 4% is $110 \div 11 =$ 10 students; then $56\% = 4\% \cdot 14$, which then represents $10 \cdot 14 = 140$ girls.

5-8. 135 more flowers