You must provide complete answers to the following questions. Correct answers without supporting work will receive minimal credit. Good luck.

Solve the equation symbolically.

$$
\text { 1) } 8 x-(4 x-1)=2
$$

Solve the problem. Round your answer to the nearest whole number.
2) A line from the top of a cliff to the ground passes just over the top of a pole 5.0 feet high and meets the ground at a point 6.0 feet from the base of the pole. If the point is 62 feet from the base of the cliff, how high is the cliff?

## Solve the problem.

3) In a chemistry class, 5 liters of a $4 \%$ silver iodide solution must be mixed with a $10 \%$ solution to get a $6 \%$ solution. How many liters of the $10 \%$ solution are needed?
4) $\qquad$
5) $\qquad$
6) Frank can type a report in 8 hours. James takes 3 hours to type it. How long will it take the two of them typing together?
7) $\qquad$
8) A rectangular Persian carpet has a perimeter of 248 inches. The length of the carpet is 24 in . more than the width. What are the dimensions of the carpet?
