A. Fill in the blank. DON’T FORGET THE PROPER SYMBOLS! (1 point each)

Given: $\triangle TAB \sim \triangle RUN$

1) $\angle R$ corresponds to ______.  
2) $\angle A$ corresponds to ______.
3) $\overline{AB}$ corresponds to ______.  
4) $\overline{NR}$ corresponds to ______.

Given: $ABCD \cong WXYZ$

5) $\overline{BC} \cong$ ______
6) $\angle Z \cong$ ______
7) $WX =$ ______
8) $WZ =$ ______
9) $m\angle C =$ ______
10) $m\angle X =$ ______
B. Use proportions to answer the following questions. I MUST SEE THE PROPORTION TO GIVE FULL CREDIT! (3 points each)

13) The triangles below are similar. Find the length of the missing side.

\[
\begin{align*}
\text{5 ft} & \quad \text{20 ft} \\
X & \quad 16 \text{ ft}
\end{align*}
\]

\[X = \ldots\]

14) The rectangles below are similar. Find the length of the missing side.

\[
\begin{align*}
\text{5 in} & \quad \text{2 in} \\
34 \text{ in} & \quad A
\end{align*}
\]

\[A = \ldots\]
15) Given: $\triangle JKL \sim \triangle XYZ$

\[ \begin{array}{c}
\text{J} & \text{K} \\
4 \text{ cm} & 6 \text{ cm} \\
\text{L} & \text{K} \\
6 \text{ cm} & \end{array} \quad \text{d} \quad \begin{array}{c}
\text{X} & \text{Y} \\
6 \text{ cm} & \end{array} \]

\[ d = \square \]

16) The scale on a map is 2 cm : 25 miles. The distance between two cities on the map is 7 cm. What is the actual distance between the cities?

17) The scale on a blueprint is 2 in : 3 ft. The bedroom is 25.5 feet long. What is the length of the bedroom on the blueprint?

18) The figures below, and their shadows, create similar figures. How tall is the tree? (Round your answer to the nearest tenths place.)
19) A rectangular photograph is 8 in wide and 10 in tall. It must be enlarged so it can be placed on a poster, and it must be 34 in wide. How tall should the enlarged photograph be? (1 extra point for a drawing/sketch)

C. Find the scale. (2 points each)

20) A 320-ft wide playground area is just 16 in wide on the scale drawing of the playground. What is the scale of the scale drawing?

21) The distance between two cities on a map is 10 in. The actual distance between the cities is 135 miles. What is the scale on the map?

22) Two scale drawings are identical, but their scales are listed differently. The first drawing lists the scale as 4 cm : 50 m. The second drawing lists the scale as 1 cm : ???

EXTRA CREDIT: (1 point)

You will be asked to verify that you know what a proportion is.