$\qquad$

$S=$
$0=$
SF=
$\overline{25}=$ $\qquad$ \%

Instructions: Complete the following questions in the space provided. Be sure to show ALL work!

1. A photo has dimensions 12.4 cm by 8.3 cm . The photo is to be enlarged by a scale factor of $\mathbf{4 . 5}$. Calculate the dimensions of the enlargement. (2)

| Original Dimensions | Scale factor | Enlarged (Scale) Dimensions |
| :--- | :--- | :--- |
| Length 12.4 cm | 4.5 |  |
| Width 8.3 cm | 4.5 |  |

2. Determine the scale factor of this enlargement. (3)

3. Draw a scale diagram of the triangle shown with scale factor 3.5 (4)

4. Which of polygons $A, B$, and $C$, are scale diagrams of the shaded polygon? For each scale diagram you identify, state the scale factor. (Each square =1) (3)

| Polygon | It is a scale of the <br> shaded polygon? | If yes, what is the scale <br> factor? (Show work) |
| :--- | :--- | :--- |
| A | Yes or No |  |
| B | Yes or No |  |
| C | Yes or No |  |


5. Determine the value of $y$ in this proportion. (2)
$\frac{y}{2.5}=\frac{7.5}{1.5}$
6. These quadrilaterals are similar.
a) Identify the corresponding sides and angles. (4)

- $\overline{A B}=$ $\qquad$
- $\overline{B C}=$ $\qquad$
- $\angle A=$

- $\overline{C D}=$ $\qquad$
- $\angle B=$ $\qquad$
- $\angle C=$ $\qquad$
- $\overline{D A}=$ $\qquad$
- $\angle D=$ $\qquad$

b) Determine the value of $x^{\circ}$. (1)
$x^{\circ}=$ $\qquad$
c) Determine the value of side $y$. (3)

7. This scale diagram shows the measurements of two similar triangles. Calculate the missing length. (3)

