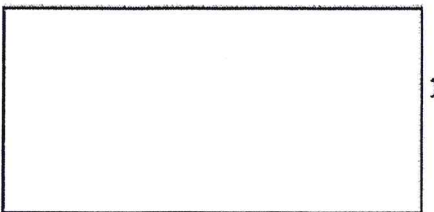
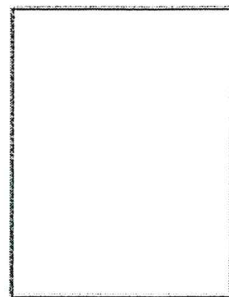
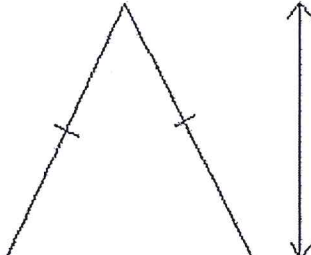

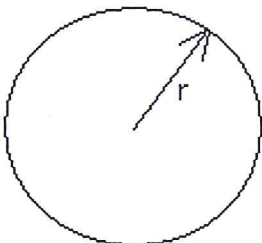
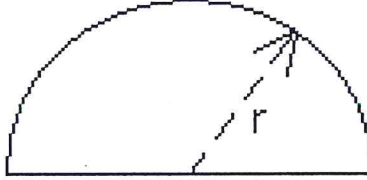
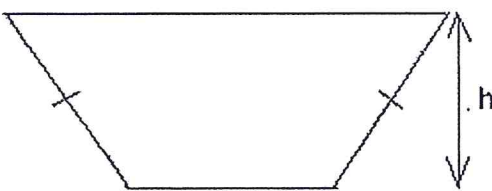
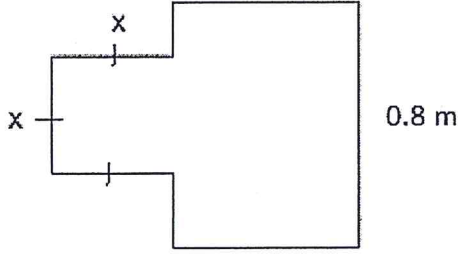
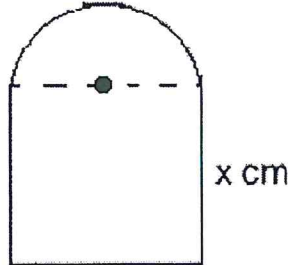
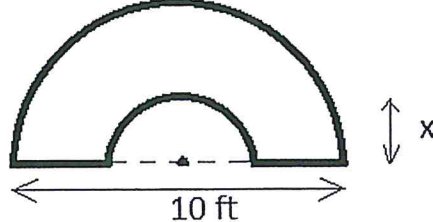
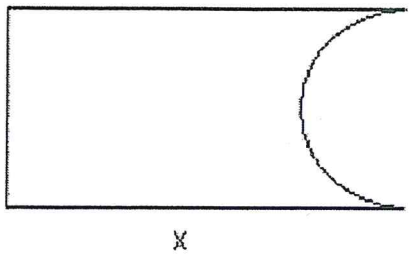
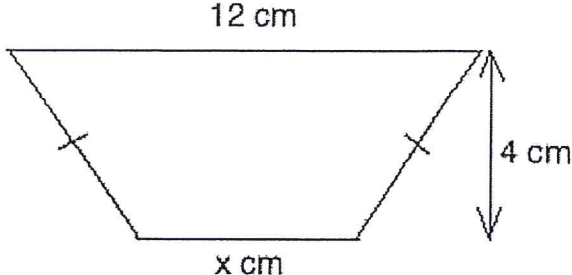


MAP4C – Solving for Missing Dimensions.

PART A: The area of each shape is given. Determine the value of the variable to one decimal. Note: Drawings not to scale. Answer to 1 decimal place.

<p>1. $A = 50 \text{ cm}^2$</p>  <p style="text-align: center;">8 cm</p>	<p>2. $A = 52 \text{ in}^2$</p>  <p style="text-align: right;">4 inches</p> <p style="text-align: center;">x</p>
<p>3. $A = 160 \text{ cm}^2$</p>  <p style="text-align: center;">b</p> <p style="text-align: right;">20 cm</p>	<p>4. $A = 44 \text{ in}^2$</p>  <p style="text-align: center;">8 inches</p> <p style="text-align: right;">h</p>
<p>5. $A = 60 \text{ cm}^2$</p>  <p style="text-align: center;">r</p>	<p>6. $A = 20 \text{ in}^2$</p>  <p style="text-align: center;">r</p>
<p>7. $A = 69 \text{ feet}^2$</p>  <p style="text-align: center;">15 feet</p> <p style="text-align: center;">8 feet</p> <p style="text-align: right;">h</p>	<p>8. $A = 0.5 \text{ m}^2$</p>  <p style="text-align: center;">50 cm</p> <p style="text-align: right;">0.8 m</p> <p style="text-align: center;">x</p>
<p>9. $A = 55 \text{ cm}^2$</p>  <p style="text-align: center;">5.2 cm</p> <p style="text-align: right;">x cm</p>	<p>10. $A = 30 \text{ feet}^2$</p>  <p style="text-align: center;">10 ft</p> <p style="text-align: right;">x</p>

<p>11. $A = 9 \text{ in}^2$</p> 	<p>12. $A = 36 \text{ cm}^2$</p> 
<p>ANSWERS TO PART A</p> <p>1. $x=6.3 \text{ cm}$ 2. $x=13 \text{ in}$ 3. $b=16 \text{ cm}$ 4. $h=11 \text{ in}$ 5. $r=4.4 \text{ cm}$ 6. $r=3.6 \text{ in}$ 7. $h=6 \text{ feet}$ 8. $x=0.3\text{m}$ 9. $x=8.5 \text{ cm}$ 10. $x=2.4 \text{ cm}$ 11. $x=4.9 \text{ in}$ 12. $x=6\text{cm}$</p>	

PART B) Answer these questions about the shapes above.

13. How much bigger is the area of #3 than #5?
14. How many times bigger is the area of #3 than #5?
15. How much bigger is the area of #4 than #6?
16. How many times bigger is the area of #4 than #6?
17. How much bigger is the area of #8 than #6?
18. How many times bigger is the area of #8 than #6?
19. How much bigger is the area of #4 than #2?
20. How many times bigger is the area of #4 than #2?
21. What is the area of #1 in square meters?
22. What is the area of #2 in square feet?
23. What is the area of #7 in square meters?
24. What is the area of #6 in square feet?
25. What is the area of #5 in square inches?
26. What is the area of #10 in square cm?
27. If a student calculated $x=7.2$ in question #1, what was their percent error?
28. If a student calculated $h=12.1$ in question #4, what was their percent error?
29. If a student calculated $r=3.2$ in question #6, what was their percent error?
30. If a student calculated $x=0.7$ in question #8, what was their percent error?

PART C) Calculate the perimeter of all the shapes.

Part C Answers				
1. $P=28.5 \text{ cm}$	2. $P = 34 \text{ in}$	3. $P=51.1 \text{ cm}$	4. $P = 31.4 \text{ in}$	5. $P = 27.5 \text{ cm}$
6. $p = 18.4 \text{ in}$	7. $P = 36.9 \text{ feet}$	8. $P = 2.7 \text{ m}$	9. $p = 30.4 \text{ cm}$	10. $P = 28.5 \text{ cm}$
11. $p = 15.6 \text{ in}$	12. $P = 28 \text{ cm}$			