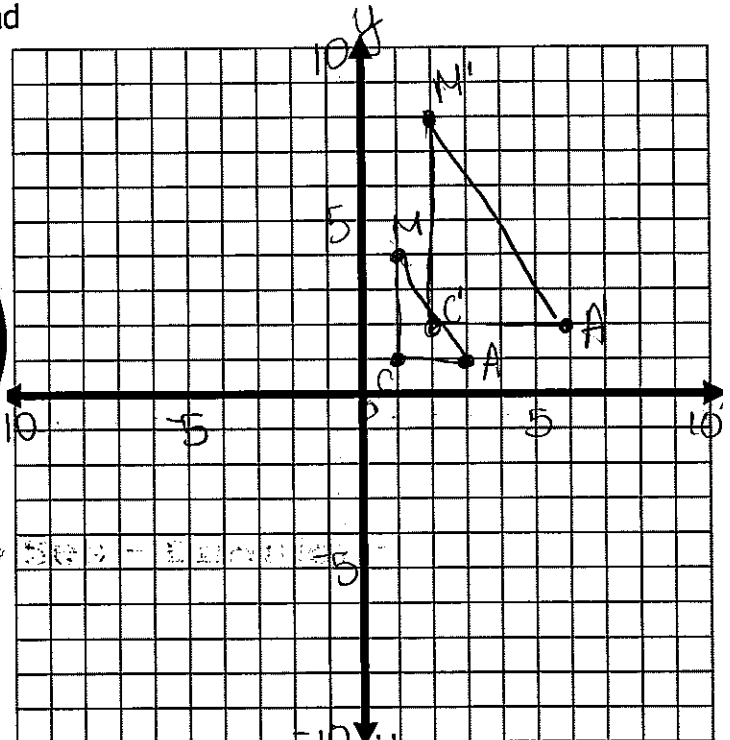
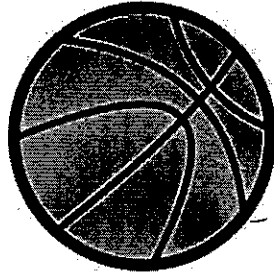


## Section 2 Problem Set - Dilations

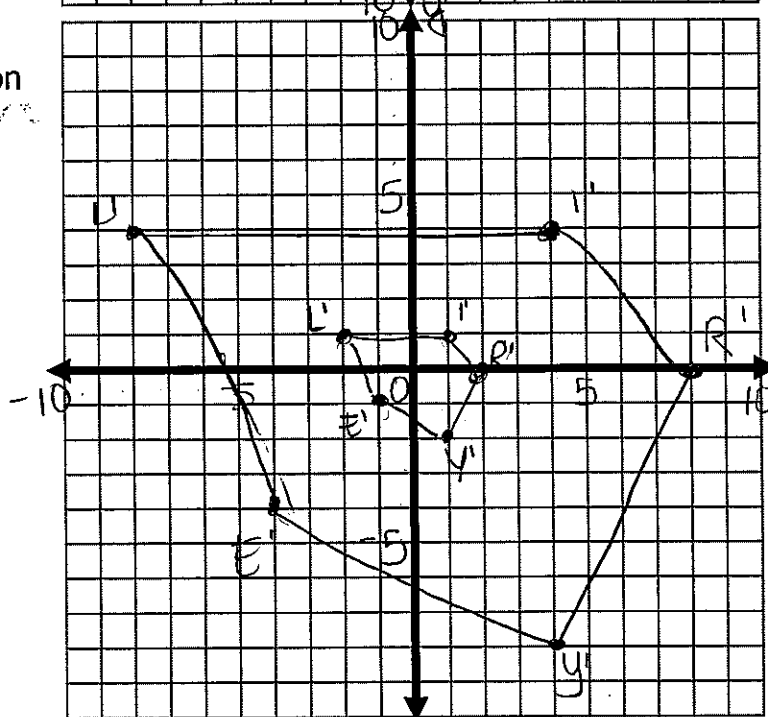
- 6.) Graph  $\triangle CAM$  with coordinates  $C(1,1)$ ,  $A(3,1)$ , and  $M(1,4)$ . Then graph  $\triangle C'A'M'$  after a dilation of scale factor 2. Write the coordinates of  $\triangle C'A'M'$ .

$C'(2,2)$   
 $A'(6,2)$   
 $M'(2,8)$



- 7.) Graph pentagon RILEY with coordinates  $R(8,0)$ ,  $I(4,4)$ ,  $L(-8,4)$ ,  $E(-4,-4)$ , and  $Y(4,-8)$ . Then graph pentagon  $R'I'L'E'Y'$  after a dilation of scale factor  $\frac{1}{4}$ . Write the coordinates of pentagon  $R'I'L'E'Y'$ .

$R'(2,0)$     $L'(-2,1)$     $Y'(1,-2)$   
 $I'(1,1)$     $E'(-1,-1)$



- 8.) What is the scale factor of a dilation that maps  $(7,9) \rightarrow (56,72)$ ?

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- 9.) If the perimeter of a rectangle is 12 and it is dilated with a scale factor of 3, what is the perimeter of the new rectangle? 36

- 10.) If the side of a triangle is 20 and it is dilated with a scale factor of  $\frac{1}{5}$ , what is the side of the new triangle? 4