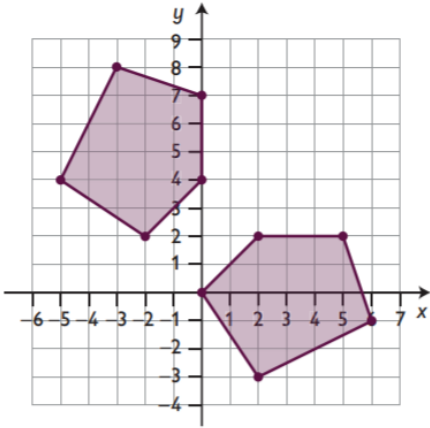
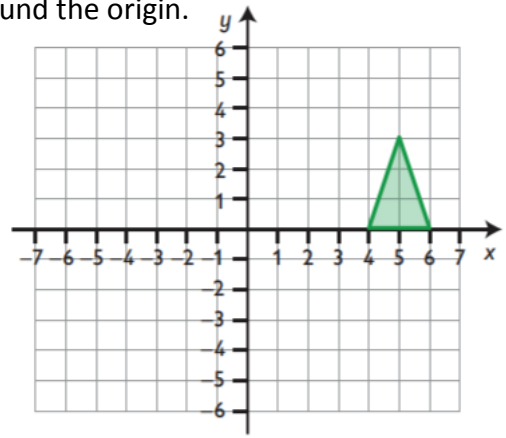


Unit 1 Material:

1) Draw in the line of reflection for the following:

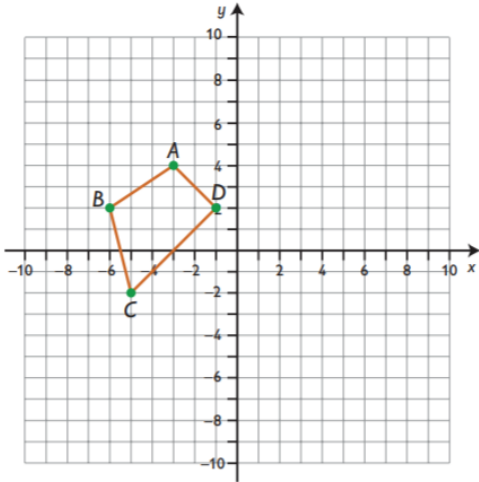


2) Rotate the following figure 90° clockwise around the origin.

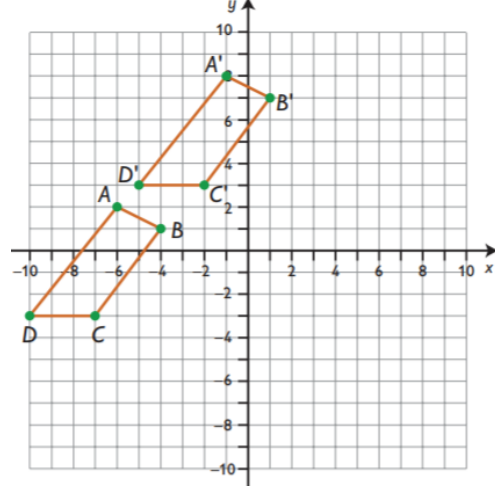


3) Rotate the figure ABCD 180° around the origin. 4) Describe the translation that is shown.

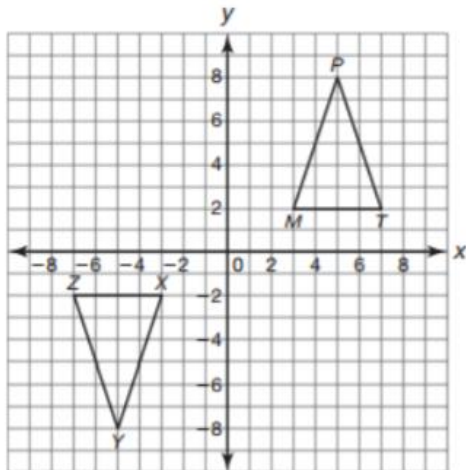
$(x, y) \rightarrow$  \_\_\_\_\_



$(x, y) \rightarrow$  \_\_\_\_\_



5) Describe the sequence of transformations with the fewest steps required to move the figure PMT to the image XYZ shown.




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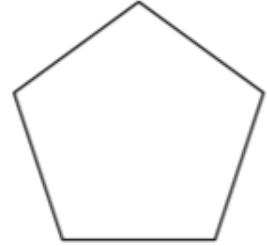
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6) a. Draw all the lines of symmetry of this rectangle.



b. What is the rotational symmetry of this rectangle?

7) a. Draw all the lines of symmetry of this regular pentagon.



b. What is the rotational symmetry of this regular pentagon?

8) a. Draw all the lines of symmetry of this regular parallelogram.

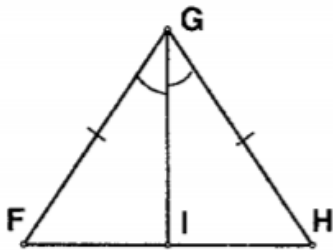


b. What is the rotational symmetry of this regular parallelogram?

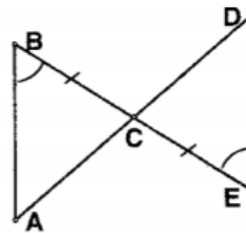
**Unit 2 Material:**

**State if the two triangles are congruent. If they are state the reasoning and the congruence statement.**

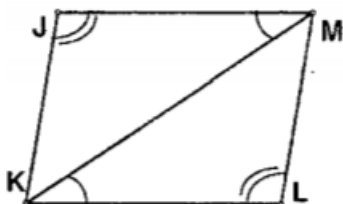
1)  $\triangle \underline{\hspace{1cm}} \cong \triangle \underline{\hspace{1cm}}$   
by                     



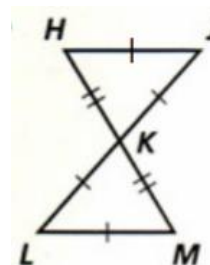
2)  $\triangle \underline{\hspace{1cm}} \cong \triangle \underline{\hspace{1cm}}$   
by                     



3)  $\triangle \underline{\hspace{1cm}} \cong \triangle \underline{\hspace{1cm}}$   
by                     

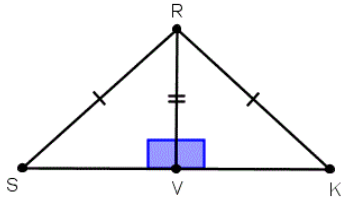


4)  $\triangle \underline{\hspace{1cm}} \cong \triangle \underline{\hspace{1cm}}$   
by                     



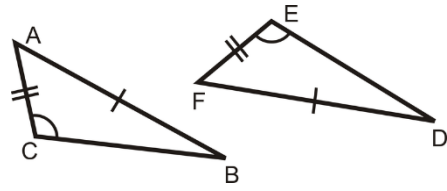
5)  $\triangle \underline{\hspace{1cm}} \cong \triangle \underline{\hspace{1cm}}$

by                     



6)  $\triangle \underline{\hspace{1cm}} \cong \triangle \underline{\hspace{1cm}}$

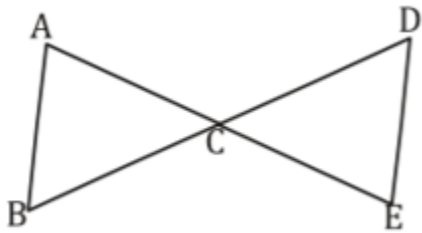
by                     



**Complete the triangle congruence proofs.**

7) Given:  $\overline{AE}$  bisects  $\overline{BD}$ ,  $\angle B \cong \angle D$

Prove:  $\triangle ABC \cong \triangle ECD$

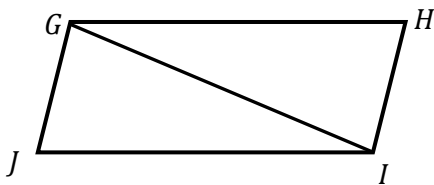


Statements

Reasons

8) Given:  $\overline{GH} \parallel \overline{IJ}$ ,  $\angle H \cong \angle J$

Prove:  $\overline{JG} \cong \overline{HI}$



Statements

Reasons

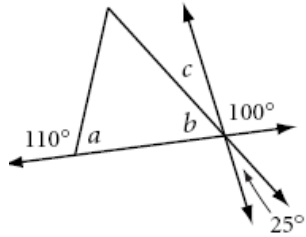


Determine the measure of each angle.

14)  $a =$  \_\_\_\_\_

$b =$  \_\_\_\_\_

$c =$  \_\_\_\_\_



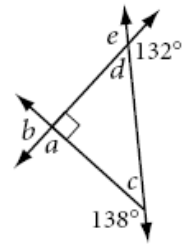
15)  $a =$  \_\_\_\_\_

$b =$  \_\_\_\_\_

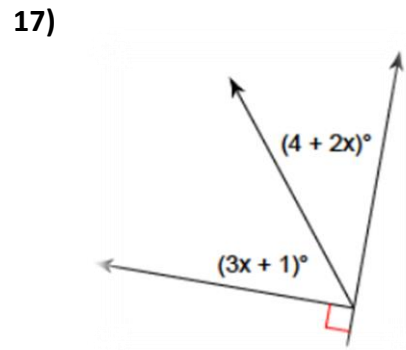
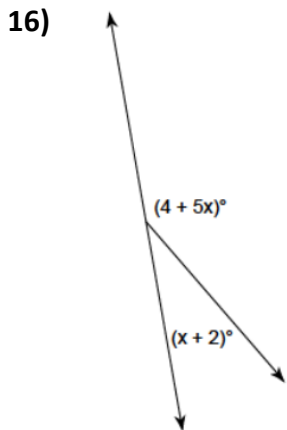
$c =$  \_\_\_\_\_

$d =$  \_\_\_\_\_

$e =$  \_\_\_\_\_



Write and solve an equation to find the missing angle measures.




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**Unit 3 Material:**

Find the recursive and explicit rule from the following tables.

1)

$x$	-3	-2	-1	0	1	2
$h(x)$	12	7	4	3	4	7

Type of Function:

Recursive:

Explicit:

2)

$x$	-3	-2	-1	0	1	2
$g(x)$	-4	-1	2	5	8	11

Type of Function:

Recursive:

Explicit:

3)

$x$	1	2	3	4	5	6
$f(x)$	2	8	32	128	512	2048

Type of Function:

Recursive:

Explicit:

4)

$x$	1	2	3	4	5
$f(x)$	3	8	15	24	35

Type of Function:

Recursive:

Explicit:

5) 

$x$	2	3	4	5	6	7
$y$	11	5	3	5	11	21

Type of Function:

Recursive:

Explicit:

6) 

$x$	1	2	3	4	5
$y$	6	3	1.5	0.75	0.375

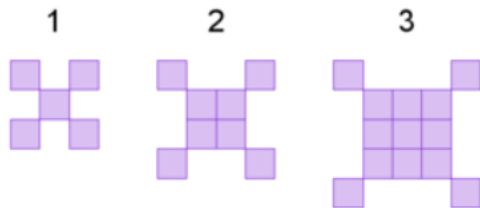
Type of Function:

Recursive:

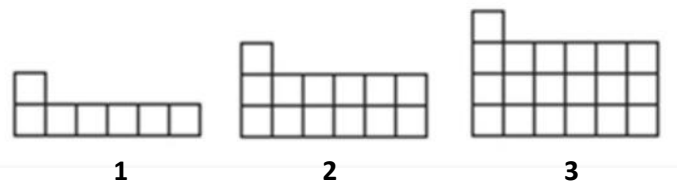
Explicit:

Find then explicit rule from the following diagrams.

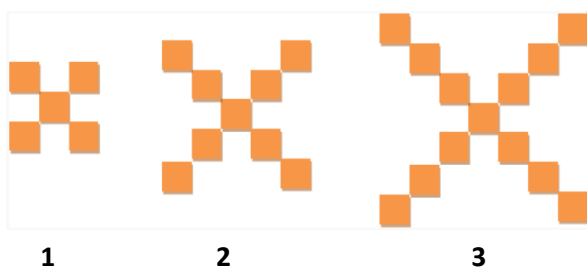
7)  $f(x) =$



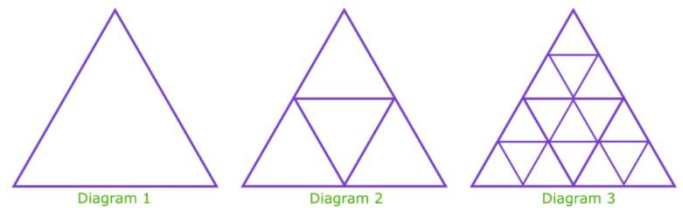
8)  $f(x) =$



9)  $f(x) =$

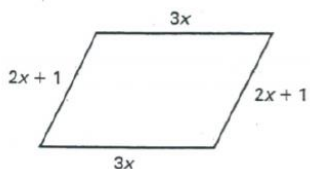


10)  $f(x) =$

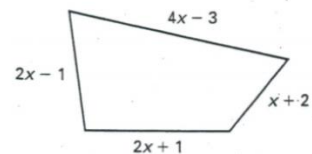


Write a polynomial that represents the perimeter of the figure.

11) Perimeter: \_\_\_\_\_



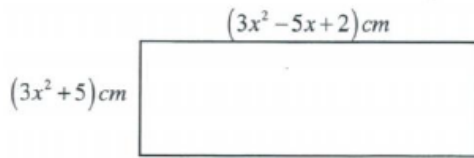
12) Perimeter: \_\_\_\_\_



Write a polynomial that represents the area perimeter of each rectangle.

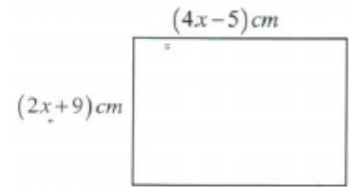
13) Area: \_\_\_\_\_

Perimeter: \_\_\_\_\_



14) Area: \_\_\_\_\_

Perimeter: \_\_\_\_\_



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Perform the indicated operation, then classify each polynomial.

15)  $(x - 4)^2$

16)  $3x(x - 4y) - 5x(x^2 - 2y)$

17)  $\frac{6x^9y^8}{8x^5y^7}$

18)  $5(x + 2) + (4x - 5) - 1$

19)  $(3x^2 - 4x + 2) - (2x^2 - 5x + 2)$

20)  $(x^2 - 3x - 1)(x^2 + 2x - 5)$

21)  $(x + 1)^7$

22)  $(3x - 2)^4$

**Unit 4 Material:**

**Complete the square to put each of the following equations into vertex form:**

1)  $f(x) = x^2 + 8x + 10$

2)  $g(x) = x^2 - 5x - 3$

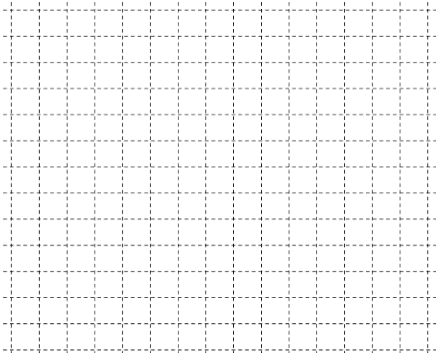
2)  $h(x) = 4x^2 + 16x - 15$

4)  $k(x) = \frac{1}{3}x^2 + 6x - 12$

**Given one form of the quadratic, find the other two forms (if possible). Make a table and graph each of the following equations on the grids provided. (Include at least two accurate points on either side of the line of symmetry.)**

5) Vertex Form:  $y = 2(x - 1)^2 - 3$

Standard Form: \_\_\_\_\_



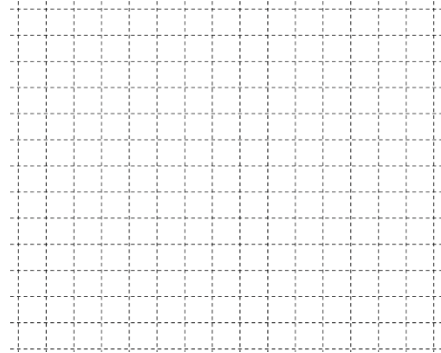
Vertex: \_\_\_\_\_

Axis of Symmetry: \_\_\_\_\_

Transformations from  $y = x^2$ :

6) Vertex Form: \_\_\_\_\_

Standard Form:  $y = x^2 + 4x + 3$



Vertex: \_\_\_\_\_

Axis of Symmetry: \_\_\_\_\_

Transformations from  $y = x^2$ :