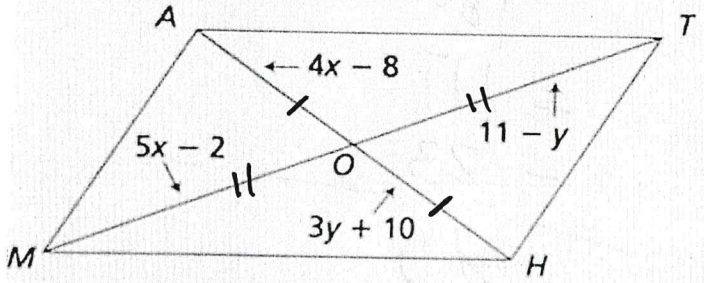
Name: Key Teacher:
Date:

Unit 4 – TEST 4 Review

Module 2 Lessons 1-13

Work every problem to the best of your ability. Show all work. Circle your answers.

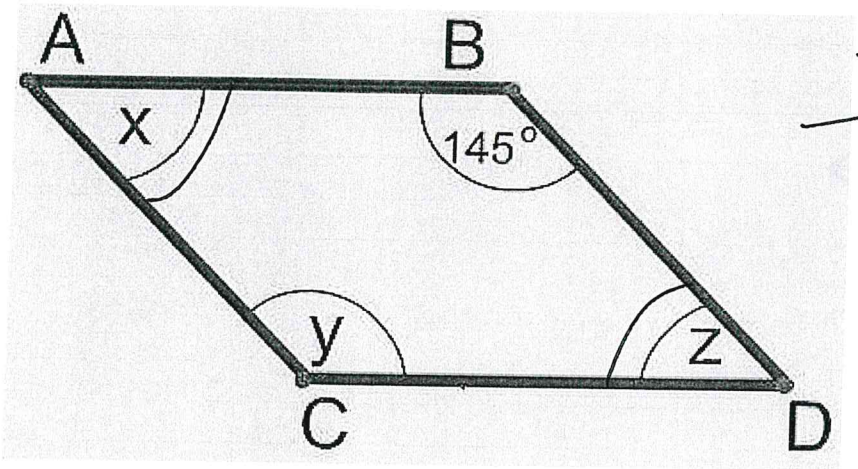
The diagonals of parallelogram *MATH* bisect each other. What is the length of $\overline{OH}$?



A −2
B 3
C 4
D 13

1.

2. Find the following x = 35°, y = 145°, z = 35°



180
−145
35°

Name:_____ Teacher:_____

Date:_____

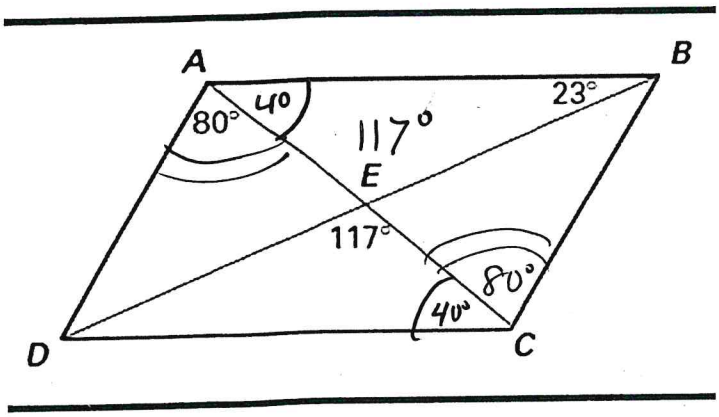
Unit 4 – TEST 4 Review

Module 2 Lessons 1-13

Parallelogram

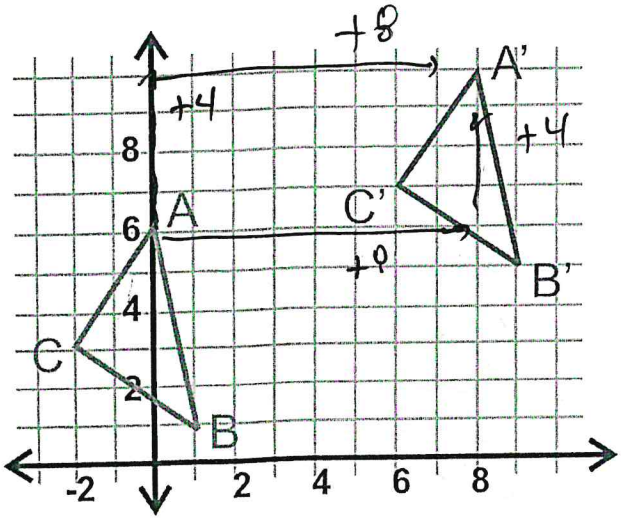
alt int Vert. ∠'s alt int alt int.

3. Find all the missing angles. <BAC= 40°, <BEA= 117°, <ACB= 80°, <ACD= 40°



180
− 117
− 23
40

Write the rule for the translation.



4.) (x, y) -> (x +8, y +4)

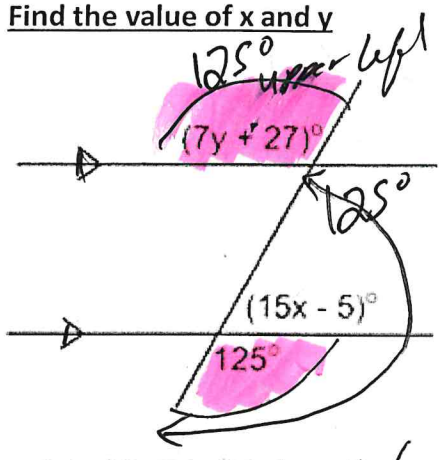
Name:_____ Teacher:_____

Date:_____

Unit 4 – TEST 4 Review

Module 2 Lessons 1-13

Find the value of x and y



~~Alt int.~~

Alt ext used

~~same-side~~

~~Corr.~~

out ext

5.) x = 4

Y = 14

Supp ∠

$125 + 15x - 5 = 180$

$120 + 15x = 180$

$-120 \quad -120$

$\frac{15x}{\div 15} = \frac{60}{\div 15}$

$x = 4$

$7y + 27 = 125$

$-27 \quad -27$

$\frac{7y}{\div 7} = \frac{98}{\div 7}$

$y = 14$

Name:_____ Teacher:_____
Date:_____

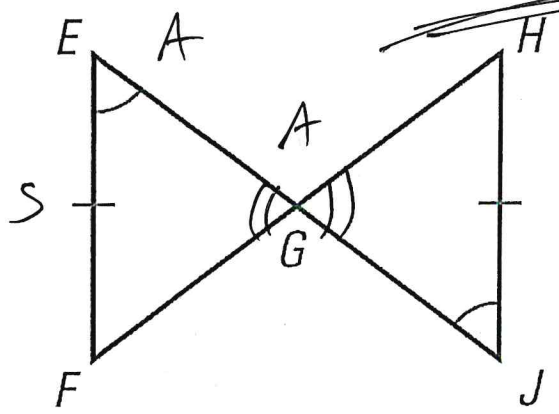
Unit 4 – TEST 4 Review

Module 2 Lessons 1-13

No parallel Lines

6.) Complete the Proof.

~~alt int. ∠s~~



Statements	Reasons
(1) See Above	(1) Given
A (2) ∠FGE ≅ ∠HGJ	(2) Vert. ∠'s (≅)
A (3) ∠E ≅ ∠J	(3) Corr. ∠'s (≅)
S (4) $\overline{EF} \cong \overline{HJ}$	(4) Corr. sides (≅)
(5) △EGF ≅ △JGH	(5) AAS

7. Name the property that the statement illustrates. If AC = CA

Symmetric

*Name:*_____ *Teacher:*_____
*Date:*_____

Unit 4 – TEST 4 Review

Module 2 Lessons 1-13

8. Name the property that statement illustrates. If $\overline{AC} = \overline{AC}$

Reflexive Reflective

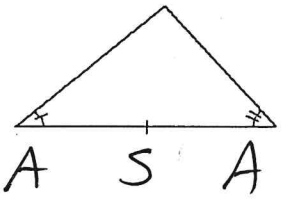
9. Name the property that the statement illustrates. If AB = BC, and BC = CD, then AB = CD

Transitive

AAS

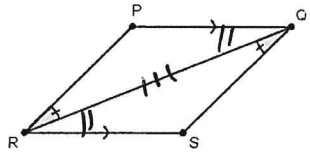
10. For which drawing can you use the given information, and the AAS Congruence theorem, to prove that the triangles are congruent?

a.)

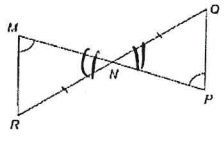


NO

b.)



ASA NO



AAS yes

c.)

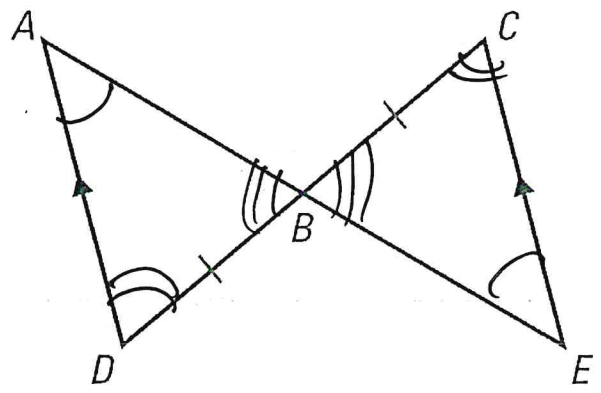
*Name:*_____ *Teacher:*_____
*Date:*_____

Unit 4 – TEST 4 Review

Module 2 Lessons 1-13

alt. int ∠s
corr ∠s

11.) Write a 2 column Proof using the following shape. Given: $\overline{AD} \parallel \overline{CE}$, $\overline{DB} = \overline{BC}$
Prove: ADB = BCE



Statements	Reasons

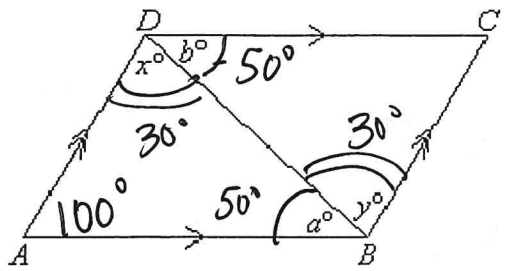
ASA or AAS

Name:_____ Teacher:_____
Date:_____

Unit 4 – TEST 4 Review

Module 2 Lessons 1-13

12.) Given <b = 50 degrees and <A is 100 degrees. Find the value of a= 50°, x= 30°, y= 30°



180
− 100
− 50
30°

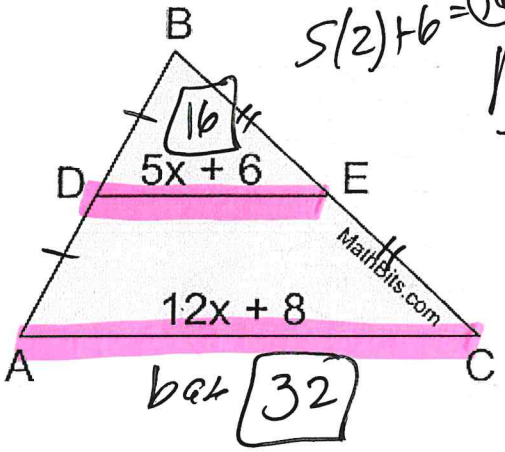
Δ - 180

Alt int ∠'s

13.) Find the Value of x = 2

5(2)+6 = 16

Midsegment (DE)



base 32

12(2) + 8 = 32

midsegment

2(5x+6) = 12x + 8

10x + 12 = 12x + 8
−12x −12 −12x −12

−2x = −4
÷−2 ÷−2

x = 2

14.) What would the coordinates be for a reflection of these coordinates across the x-axis?

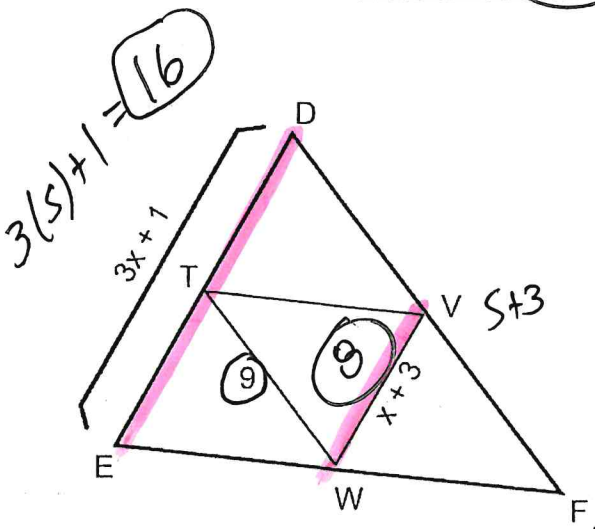
A(8, 11)	A'(8 , −11)
B(3, -3)	B'(3 , 3)
C(-2, 1)	C'(−2 , −1)
D(9, -7)	D'(9 , 7)

Name:_____ Teacher:_____
Date:_____

Unit 4 – TEST 4 Review

Module 2 Lessons 1-13

15.) Find the value of X= 5



Midsegment $\overline{WV}$ ← base

$2(x+3) = 3x+1$

$2x + 6 = 3x + 1$

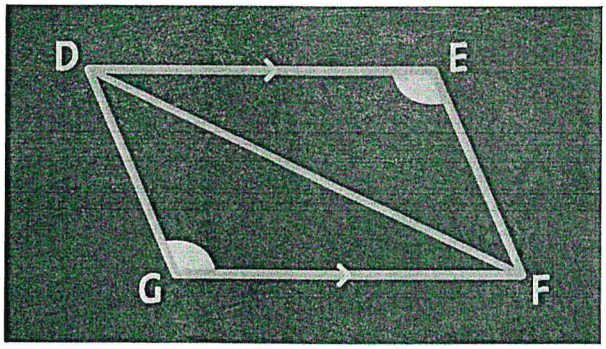
$-3x - 6 \quad -3x - 6$

$-1x = -5$

$\div -1 \quad \div -1$

$x = 5$

16.) Write a 2-column proof.



Statements | Reasons

ASA or AAS

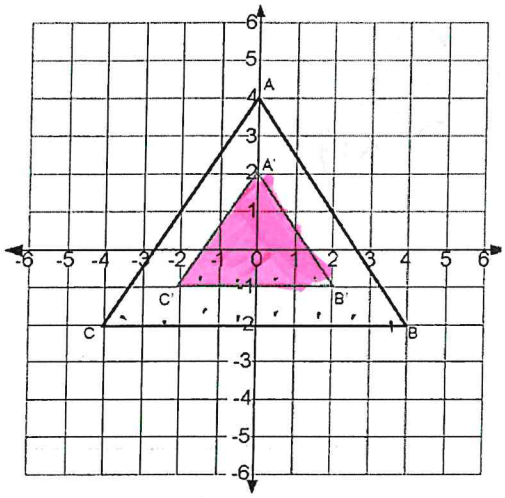
Name:_____ Teacher:_____

Date:_____

Unit 4 – TEST 4 Review

Module 2 Lessons 1-13

17. Find the dilation scale factor. 1/2

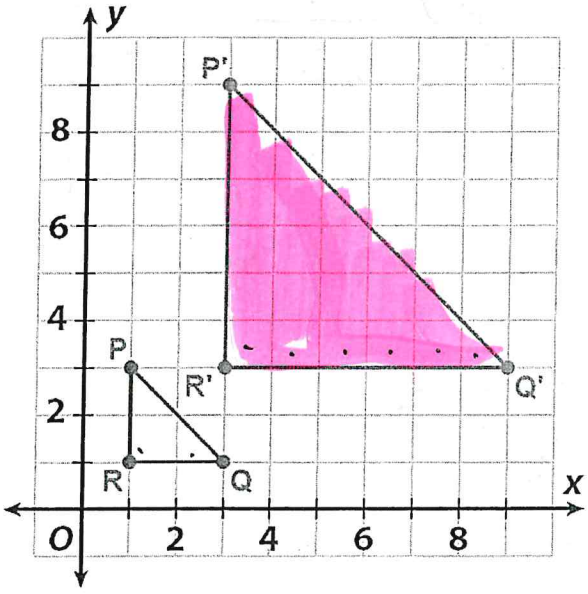


$8 \cdot \frac{1}{2} = 4$

C B C' B'

$d = \sqrt{(x^2 - x')^2 + (y^2 - y')^2}$

18. Find the dilation scale factor. 3



$\frac{2}{RQ} \cdot \frac{3}{} = \frac{6}{R'Q'}$

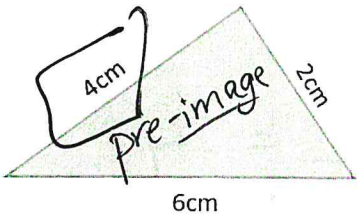
Name:_____ Teacher:_____

Date:_____

Unit 4 – TEST 4 Review

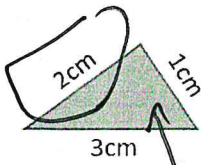
Module 2 Lessons 1-13

19. What is the dilation scale factor? 1/2



$4 \cdot \frac{1}{2} = 2$ image

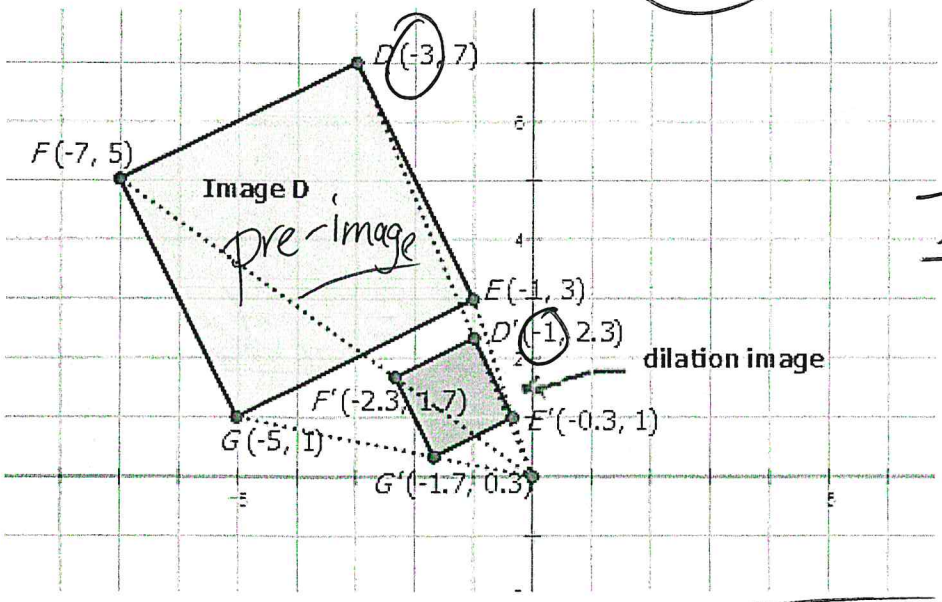
pre



image

1/3

20. What is the dilation scale factor? _____



$D \rightarrow D'$

$\frac{-3}{1} \cdot \frac{1}{3} = -1$

$\frac{-4}{1} \cdot \frac{1}{4} = -1$

$d = \sqrt{(x^2 - x^1)^2 - (y^2 - y^1)^2}$

$\sqrt{(-7 - (-3))^2 - (7 - 5)^2}$