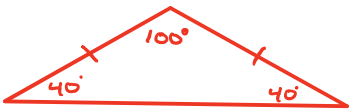
Triangles

Hw Section 4.1

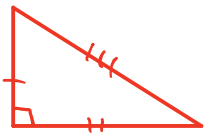
Draw the following. Mark the picture!!!

1. Obtuse Isosceles Triangle



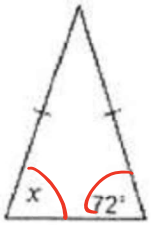
2. Acute Equilateral Triangle

3. Right Scalene Triangle



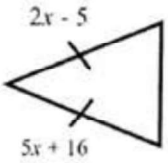
Find *x*.

4.



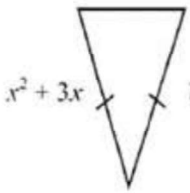
$x = 72$

5.



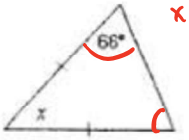
$2x - 5 = 5x + 16$
$-5 = 3x + 16$
$-21 = 3x$
$-7 = x$

6.



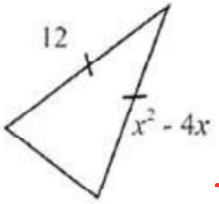
$x^2 + 3x = 18$
$x^2 + 3x - 18 = 0$
$(x + 6)(x - 3) = 0$
$x + 6 = 0$ | $x - 3 = 0$
$x = -6$ | $x = 3$

7.



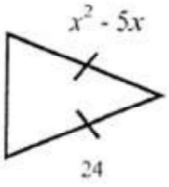
$x + 66 + 66 = 180$
$x + 132 = 180$
$x = 48$

8.



$x^2 - 4x = 12$
$x^2 - 4x - 12 = 0$
$(x - 6)(x + 2) = 0$
$x - 6 = 0$ | $x + 2 = 0$
$x = 6$ | $x = -2$

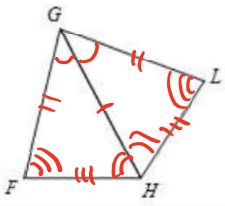
9.



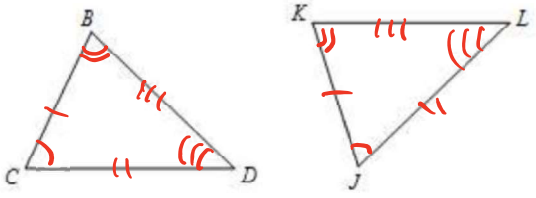
$x^2 - 5x = 24$
$x^2 - 5x - 24 = 0$
$(x - 8)(x + 3) = 0$
$x - 8 = 0$ | $x + 3 = 0$
$x = 8$ | $x = -3$

Mark the angles and sides of each pair of triangles to indicate that they are congruent.

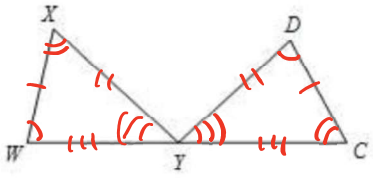
10. $\Delta GHF \cong \Delta GHL$



11. $\Delta CBD \cong \Delta JKL$

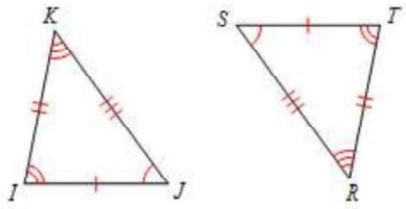


12. $\Delta WXY \cong \Delta DCY$



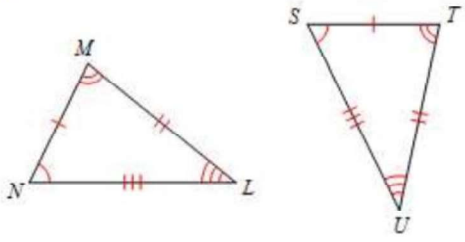
Write a statement indicating that the triangle pair is congruent. ORDER IS IMPORTANT!!!

13.



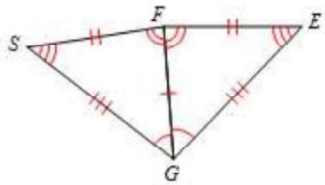
$\Delta JIK \cong \Delta STR$

14.



$\Delta NML \cong \Delta STU$

15.

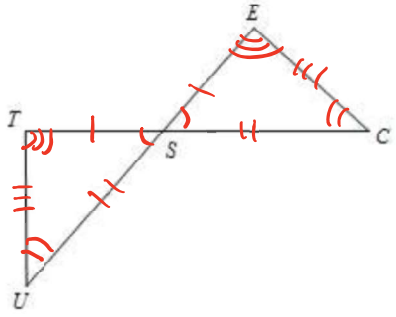


$\Delta GFS \cong \Delta GFE$

Complete each congruence statement.

16.

$\Delta SUT \cong \Delta SCE$



$\angle U \cong ?\angle C$

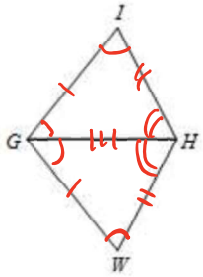
17.

$\Delta VWX \cong \Delta VLM$

$\overline{WX} \cong ?\overline{LM}$

18.

$\Delta HGI \cong \Delta HGW$



$\overline{GI} \cong ?\overline{GW}$

ALGEBRA REVIEW

SOLVE

$2(3x-4)-5=-7$

$6x-8-5=-7$

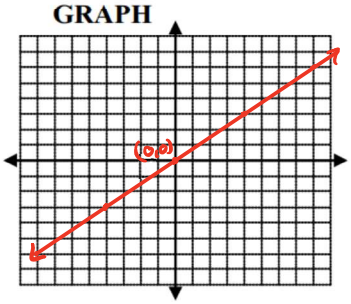
$6x-13=-7$

$6x=6$

$x=1$

GRAPH

$y=\frac{3}{4}x$



MULTIPLY

$(2x-3)(x+3)$

$=2x^2+6x-3x-9$

$=2x^2+3x-9$

SOLVE

$\frac{x}{5}=\frac{x+2}{15}$ (multiply by 15)

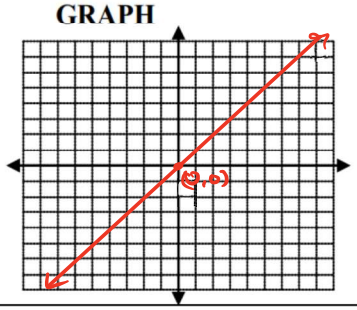
$3x=x+2$

$2x=2$

$x=1$

GRAPH

$y=x$



FACTOR

$x^2-4x-12$

$=(x-6)(x+2)$