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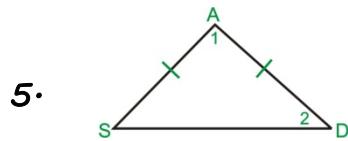
Topic: Isosceles Triangle Theorems - Worksheet 1

1. In $\triangle ABC$, $AB = BC \neq AC$. Is this isosceles triangle or not?

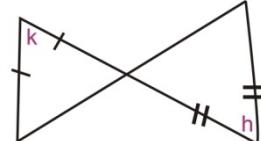
2. In $\triangle EBD$, the vertices have coordinates $E(2, -1)$, $B(0, 1)$, $D(2, 3)$. Show whether this triangle is isosceles or not isosceles.

3. In $\triangle RST$, $\angle R : \angle S : \angle T$ is $3:1:2$; is this triangle is isosceles triangle?

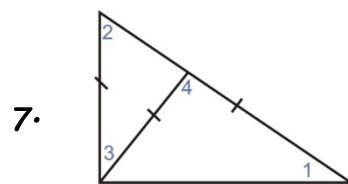
4. If two sides of a triangle are equal, the angles opposite them are equal. (True or False)



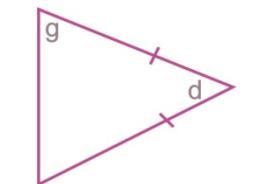
If $\angle 1 = 45^\circ$,
then $\angle 2 =$ ____.



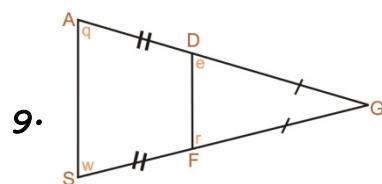
If $k = 35^\circ$,
then $h =$ ____.



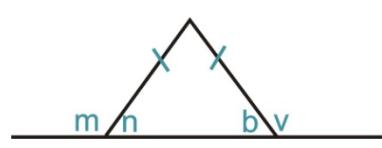
If $\angle 2 = 52^\circ$,
then $\angle 1 =$ ____.



If $g = 62^\circ$,
then $d =$ ____.



If $\angle e = 50^\circ$,
then $\angle r =$ ____.



If $\angle n = 55^\circ$,
then $\angle b =$ ____.



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Topic: Isosceles Triangle Theorems - Worksheet 2

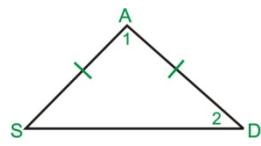
1. In $\triangle UVW$, $UV = VW \neq UW$ Is this isosceles triangle or not?

2. In $\triangle GTA$, the vertices have coordinates $G(1, -2)$, $T(2, 1)$, $A(1, 2)$. Show whether this triangle is isosceles or not isosceles.

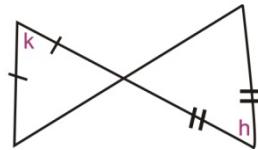
3. In $\triangle ARU$, $\angle A : \angle R : \angle U$ is $2:2:1$; is this triangle is isosceles triangle?

4. If Three sides of a triangle are equal, the angles opposite them are equal. (True or False)

5.

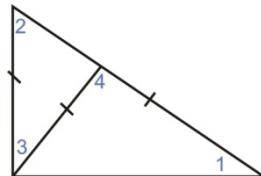


$$\begin{aligned} \text{If } \angle 1 &= 55^\circ, \\ \text{then } \angle 2 &= \underline{\hspace{2cm}}. \end{aligned}$$

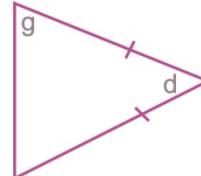


$$\begin{aligned} \text{If } k = 65^\circ, \\ \text{then } h &= \underline{\hspace{2cm}}. \end{aligned}$$

7.

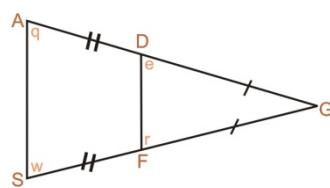


$$\begin{aligned} \text{If } \angle 2 &= 44^\circ, \\ \text{then } \angle 1 &= \underline{\hspace{2cm}}. \end{aligned}$$

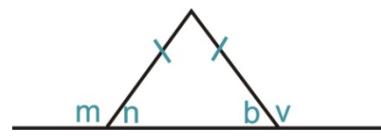


$$\begin{aligned} \text{If } g = 72^\circ, \\ \text{then } d &= \underline{\hspace{2cm}}. \end{aligned}$$

9.



$$\begin{aligned} \text{If } \angle e &= 45^\circ, \\ \text{then } \angle r &= \underline{\hspace{2cm}}. \end{aligned}$$



$$\begin{aligned} \text{If } \angle n &= 60^\circ, \\ \angle b &= \underline{\hspace{2cm}}. \end{aligned}$$

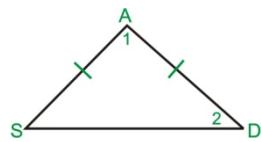


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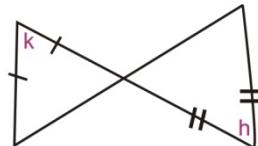
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Topic: Isosceles Triangle Theorems - Worksheet 31. In $\triangle SHA$, $SH \neq HA = SA$ Is this isosceles triangle or not?2. In $\triangle CVR$, the vertices have coordinates $C(2, -2)$, $V(1.5, 1)$, $R(1, -2)$. Show whether this triangle is isosceles or not isosceles.3. In $\triangle MNC$, $\angle M : \angle N : \angle C$ is $1:3:2$; is this triangle is isosceles triangle?4. If Three sides of a triangle are equal, the angles opposite them are not equal.
(True or False)

5.

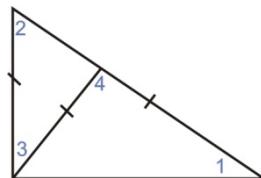


If $\angle 2 = 75^\circ$,
then $\angle 1 = 6^\circ$
_____.

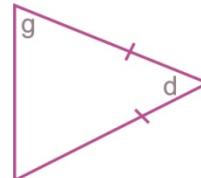


If $h = 85^\circ$,
then $k =$
_____.

7.

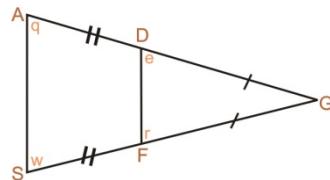


If $\angle 2 = 63^\circ$,
then $\angle 1 = 8^\circ$
_____.

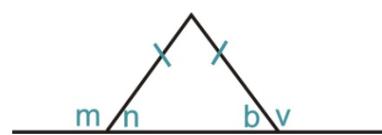


If $d = 55^\circ$,
then $g =$
_____.

9.



If $\angle r = 60^\circ$,
then $\angle e = 10^\circ$
_____.



If $\angle b = 50^\circ$, then
 $\angle n =$
_____.

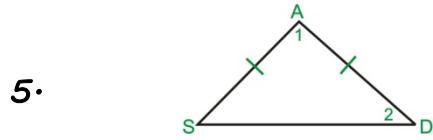


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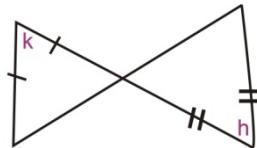
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Topic: Isosceles Triangle Theorems - Worksheet 41. In $\triangle XYZ$, $XY = YZ = ZX$ Is this isosceles triangle or not?2. In $\triangle PQS$, the vertices have coordinates $P(2,1)$, $Q(2,2)$, $S(1,-2)$. Show whether this triangle is isosceles or not isosceles.3. In $\triangle GAB$, $\angle G : \angle A : \angle B$ is 3:3:2; is this triangle is isosceles triangle?

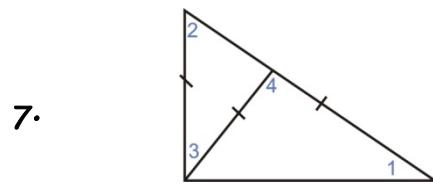
4. If Three sides of a triangle are not equal, the angles opposite them are equal. (True or False)



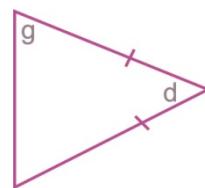
If $\angle 1 = 62^\circ$, then $\angle 2 = \underline{\hspace{2cm}}$.



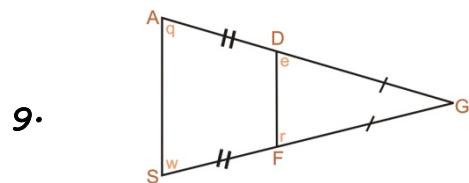
If $h = 35^\circ$, then $k = \underline{\hspace{2cm}}$.



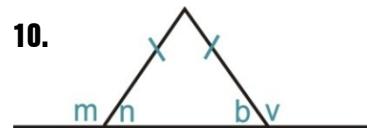
If $\angle 2 = 22^\circ$, then $\angle 1 = \underline{\hspace{2cm}}$.



If $g = 40^\circ$, then $d = \underline{\hspace{2cm}}$.



If $\angle r = 50^\circ$, then $\angle e = \underline{\hspace{2cm}}$.



If $\angle b = 45^\circ$, then $\angle n = \underline{\hspace{2cm}}$.

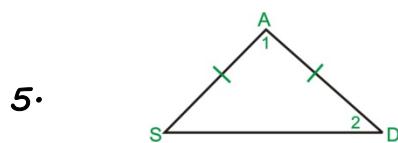
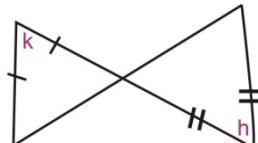
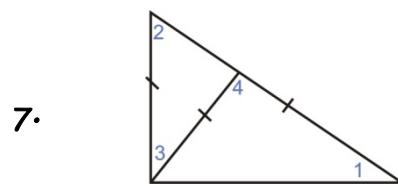
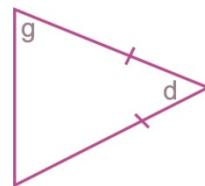
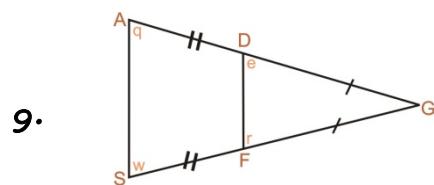
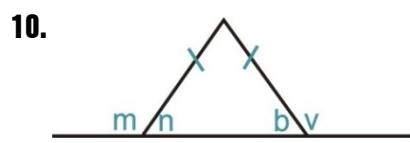


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Topic: Isosceles Triangle Theorems - Worksheet 51. In $\triangle HIJ$, $HI = IJ = JH$ Is this isosceles triangle or not?2. In $\triangle SUB$, the vertices have coordinates $S(1,3)$, $U(2,-1)$, $B(1,1)$. Show whether this triangle is isosceles or not isosceles.3. In $\triangle CUB$, $\angle C : \angle U : \angle B$ is $1:4:2$; is this triangle is isosceles triangle?

4. If Two sides of a triangle are equal, the angles opposite them are equal. (True or False)

If $\angle 1 = 88^\circ$,
then $\angle 2 = \underline{\hspace{2cm}}$.If $h = 40^\circ$,
then $k = \underline{\hspace{2cm}}$.If $\angle 2 = 45^\circ$,
then $\angle 1 = \underline{\hspace{2cm}}$.If $g = 60^\circ$,
then $d = \underline{\hspace{2cm}}$.If $\angle e = 30^\circ$,
then $\angle r = \underline{\hspace{2cm}}$.If $\angle n = 68^\circ$, then $\angle b = \underline{\hspace{2cm}}$.