Geometry   Name_____
Unit 7   Date_____
Lesson 4 Practice   Period_____
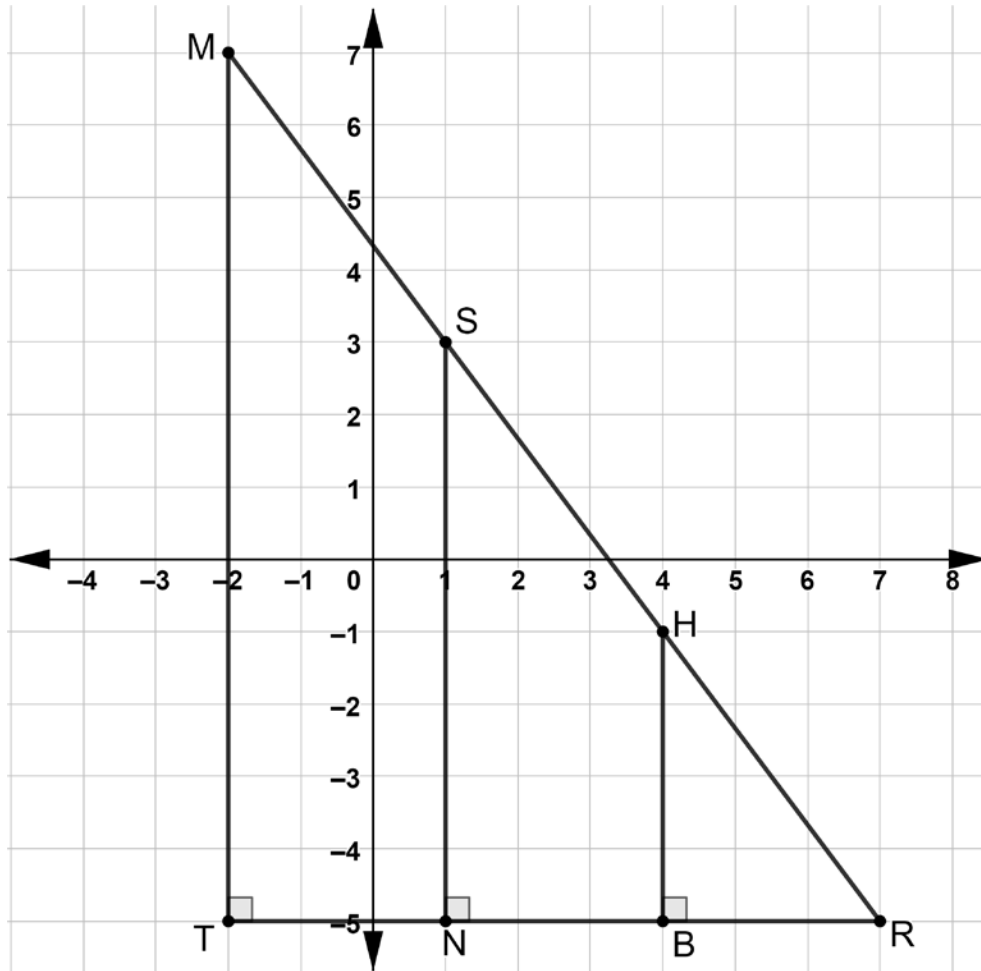
Three right triangles are shown on the coordinate grid.

The coordinates of the vertices are shown.

$M (-2,7)$ $S (1,3)$ $H (4,-1)$ $R (7,-5)$

$T (-2,-5)$ $N (1,-5)$ $B (4,-5)$

1.   Explain why these triangles are similar.

Complete the table.

Triangle	Side	Length
HRB	$\overline{BH}$	
	$\overline{BR}$	
	$\overline{RH}$	
SRN	$\overline{NS}$	
	$\overline{RN}$	
	$\overline{SR}$	
MTR	$\overline{MT}$	
	$\overline{RT}$	
	$\overline{MR}$	

2. HRB
3. SRN
4. MTR

Using $\angle R$ as the reference angle, find the three ratios for each triangle. Write the values as a decimal rounded to the nearest thousandth.

Triangle	Cosine	Sine	Tangent
HRB			
SRN			
MTR			

5. HRB
6. SRN
7. MTR

Use your calculator to find each. Round to the nearest thousandth.

Trigonometric Ratio	Value rounded to nearest thousandth
$cos(53°)$	
$sin(53°)$	
$tan(53°)$	

8. $cos(53°)$
9. $sin(53°)$
10. $tan(53°)$