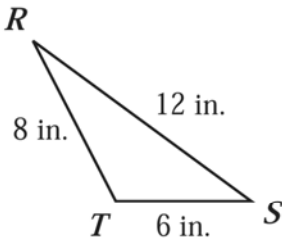
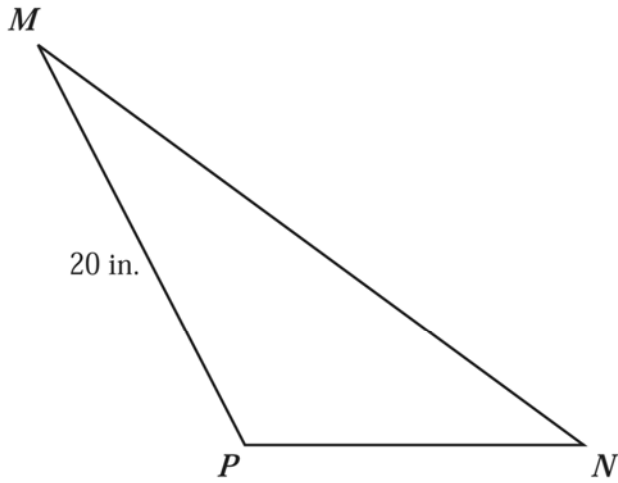


1 In the diagram below,  $\triangle MNP \sim \triangle RST$ .

Mark your answer here: 1. (A)(B)(C)(D)



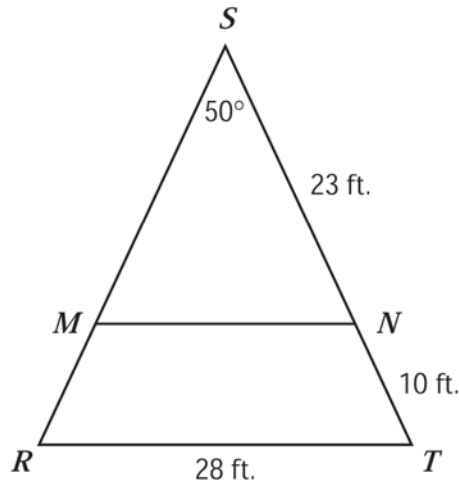
Based on the dimensions in the diagram, what is the length of  $\overline{MN}$ ?

- A. 15 in.
- B. 24 in.
- C. 30 in.
- D. 40 in.



Directions: For the problem below, use a separate piece of paper to write your answers. Your teacher will not count anything you write on this page.

2 The diagram below shows  $\triangle RST$ .



- $\triangle RST$  is an isosceles triangle with congruent sides  $\overline{RS}$  and  $\overline{ST}$ .
  - Point  $M$  lies on  $\overline{RS}$ , and point  $N$  lies on  $\overline{ST}$ .
  - $\overline{MN}$  is parallel to  $\overline{RT}$ .
  - The length of  $\overline{SN}$  is 23 feet, and the length of  $\overline{NT}$  is 10 feet.
- a. What is the length of  $\overline{RS}$ ? Show or explain how you got your answer.
  - b. What is  $m\angle T$ ? Show or explain how you got your answer.
  - c. What is  $m\angle MNS$ ? Show or explain how you got your answer.
  - d. Explain why  $\triangle MNS$  is similar to  $\triangle RTS$ .
  - e. What is the length of  $\overline{MN}$ ? Show or explain how you got your answer.

