Math 2   Name_____
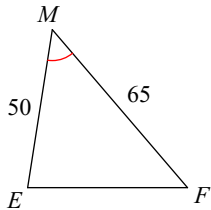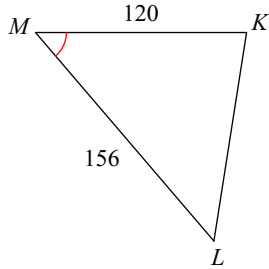
Similarity Theorems and Triangle Proportionality Theorem   Date_____
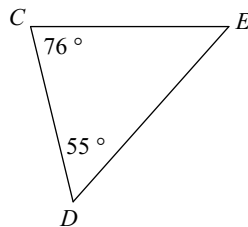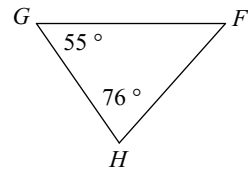
State if the triangles in each pair are similar. If so, state how you know they are similar and complete the similarity statement.

1)

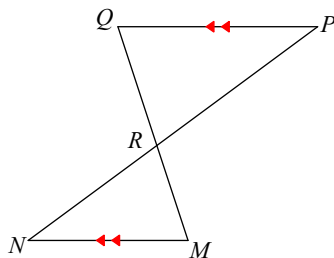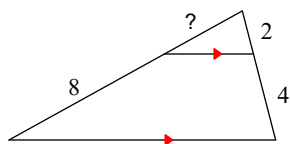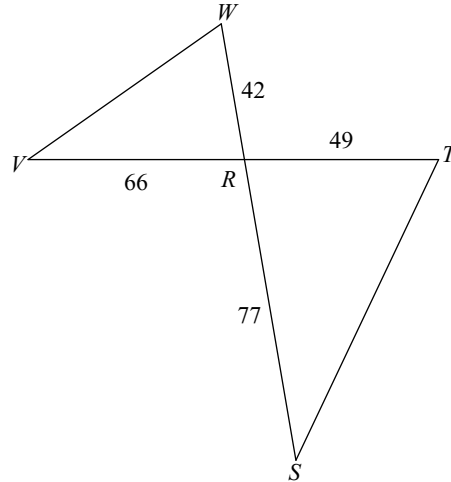$\triangle MLK \sim$ _____

2)

$\triangle RST \sim$ _____

3)

$\triangle CDE \sim$ _____

4)

$\triangle FGH \sim$ _____

5)

$\triangle RQP \sim$ _____

6)

$\triangle EDC \sim$ _____

Find the missing length indicated.

7)

8)

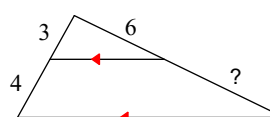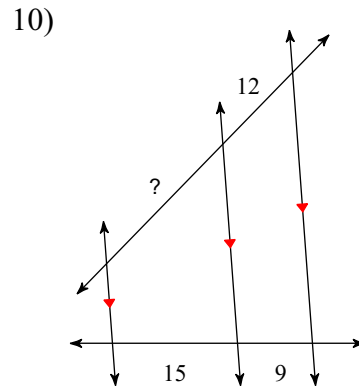9)

12

3

?   20

10)

12

?

15   9

11)

15

27

45   ?

12)

28

?

12
21

Solve for x.

13)

2

6

2x − 12   3

14)

9

5x

6   10

15)

4

3

x − 4
14

16)

2x

2

4

1

17)

15

10

x − 1

6

18)

28
16

7x + 7

27
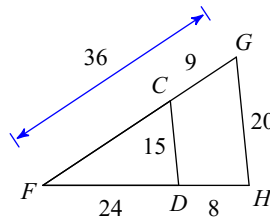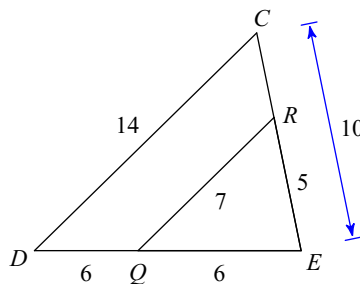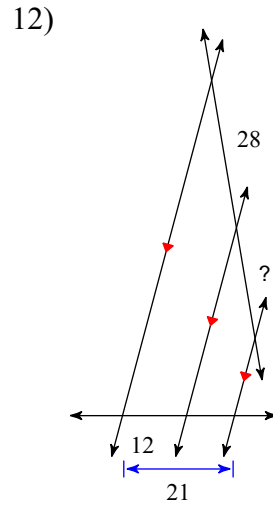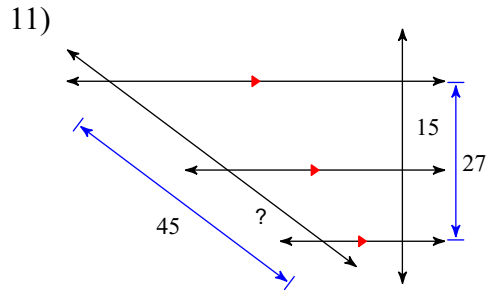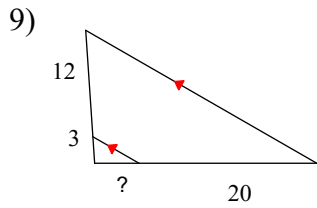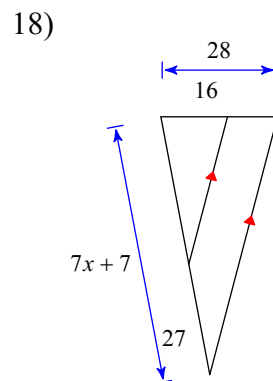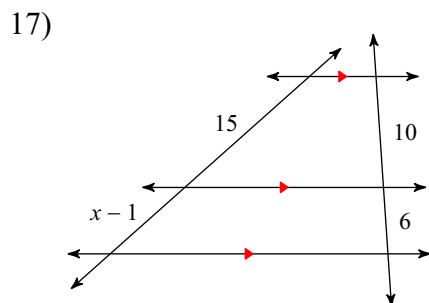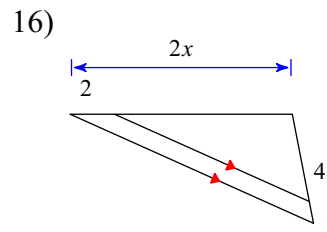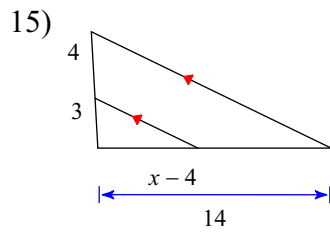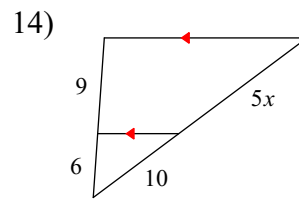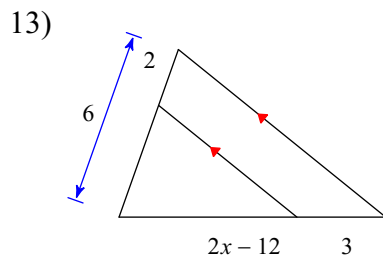
Answers to Similarity Theorems and Triangle Proportionality Theorem

1) similar; SAS similarity; △*MFE*

3) similar; AA similarity; △*HGF*

5) similar; AA similarity; △*RMN*

7) 4

9) 5

11) 20

13) 9

15) 10

17) 10