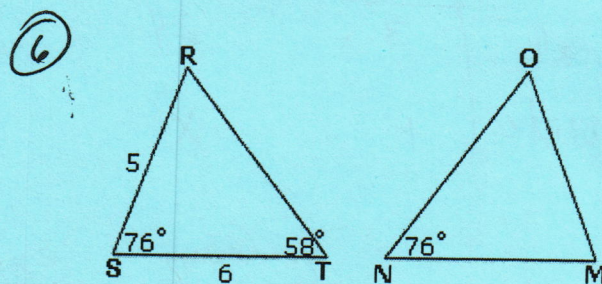
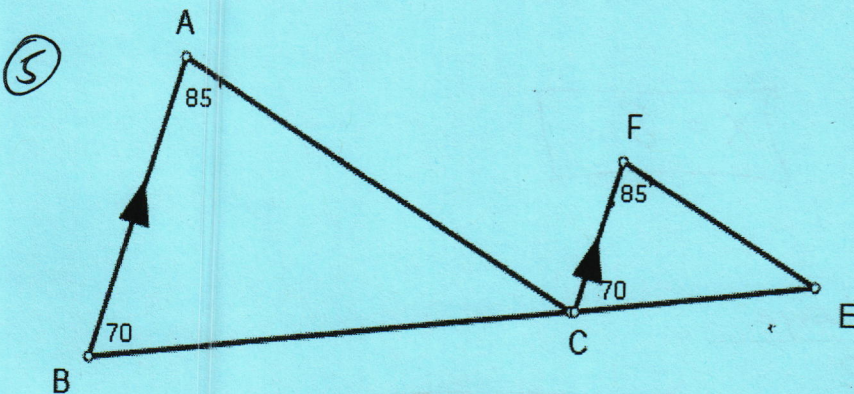
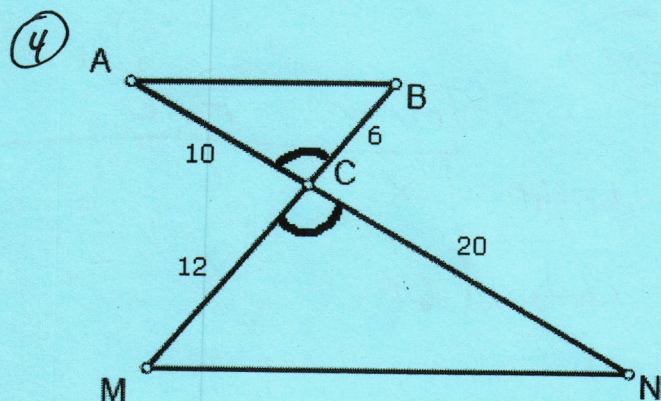
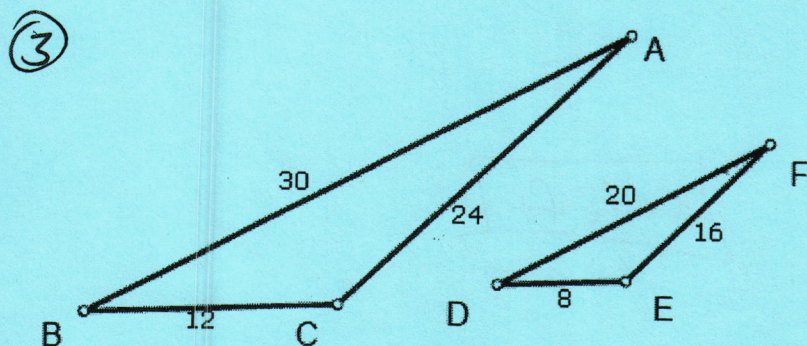
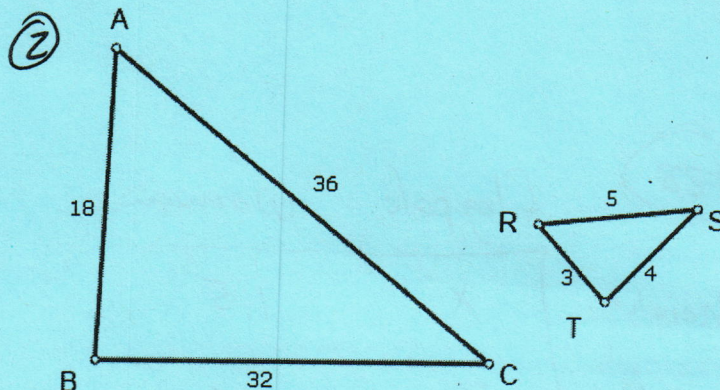
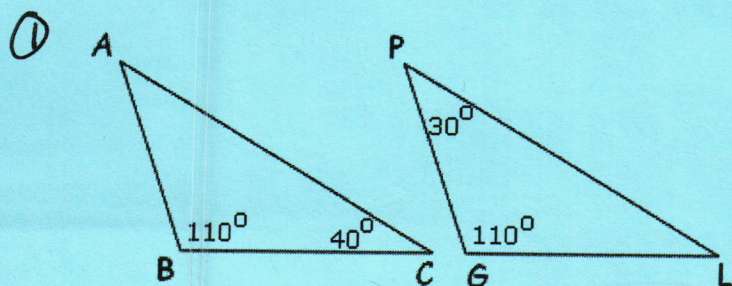


STATION 1

AA. SAS. SSS.

DO NOT WRITE ON
THIS PAPER

- A) Are the triangles similar by AA, SAS, SSS or NOT SIMILAR?
B) If they are similar, write a similarity statement.

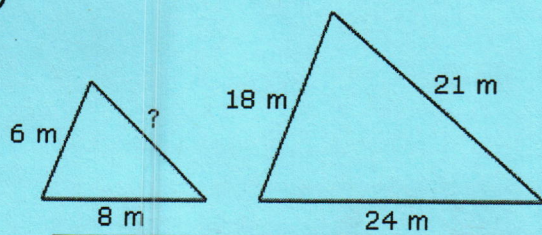


STATION 2

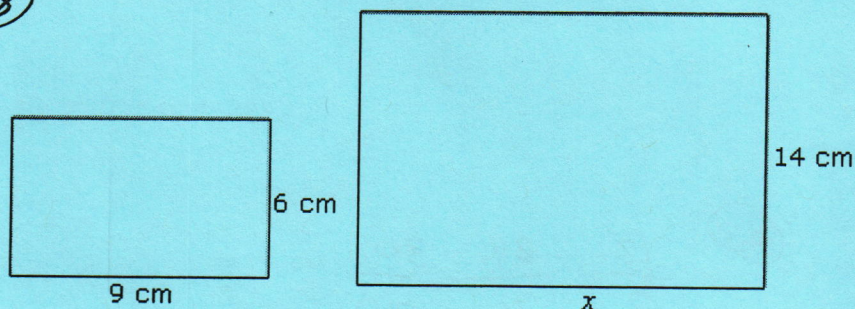
Find the missing side.

Each of the following polygons are similar. Find the missing sides

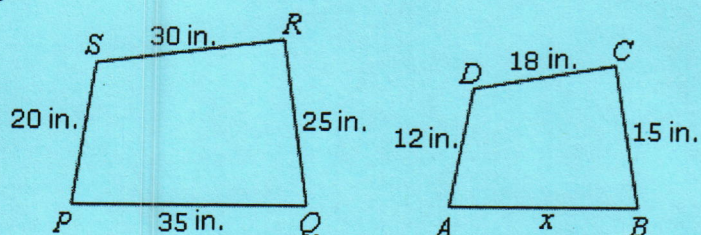
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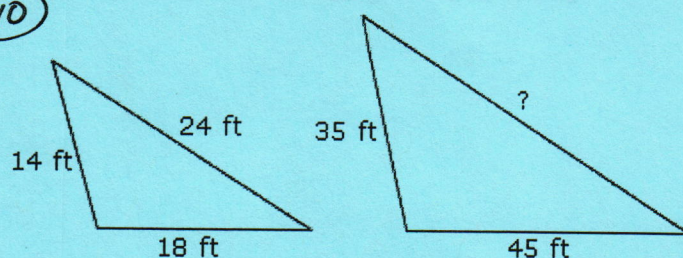
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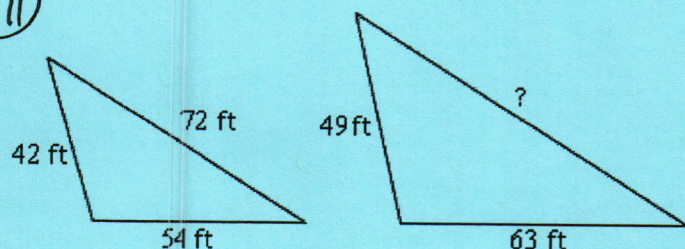
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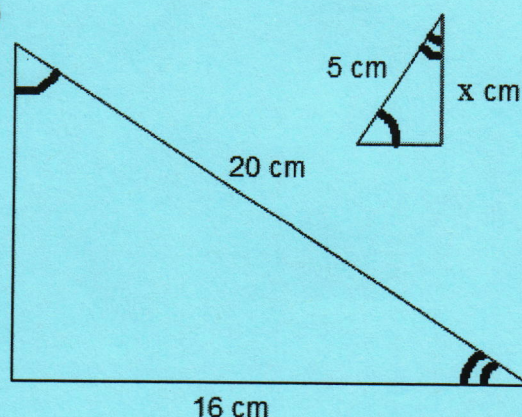
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11



12



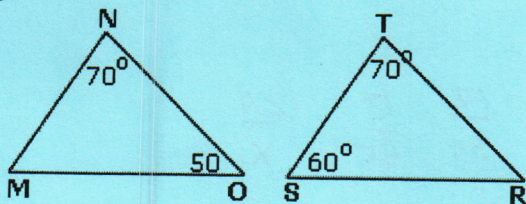
STATION 3

SAS, AA, SSS pt II

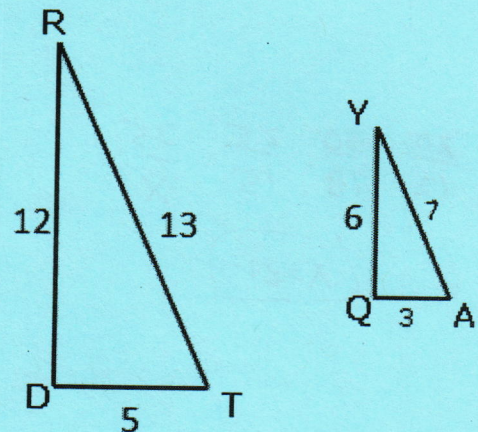
DO NOT WRITE ON
THIS PAPER

- A) Are the triangles similar by AA, SAS, SSS or NOT SIMILAR?
B) If they are similar, write a similarity statement.

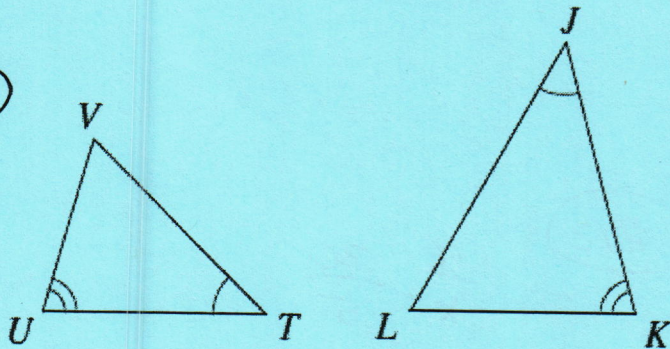
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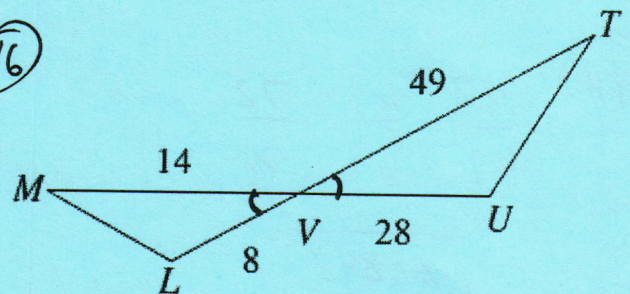
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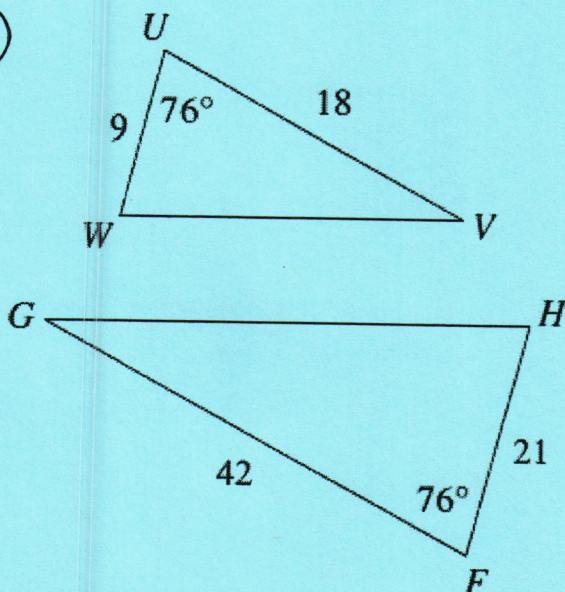
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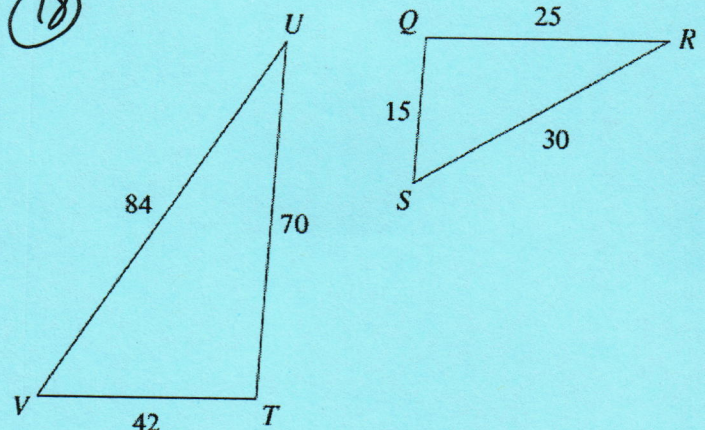
16



17



18



STATION 4

MISC

DID NOT WRITE ON

THIS PAPER

19. Reduce the following ratio 21 : 35 : 56

20. Reduce the following ratio 1200 : 1500 : 1900

21. Reduce the following ratio 16 : 26 : 34

22. Reduce the following ratio 54 : 72 : 90

Solve for X:

$$23. \frac{9}{12} = \frac{x-4}{32}$$

$$24. \frac{4}{10} = \frac{x+3}{25}$$

$$25. \frac{x+1}{15} = \frac{2}{3}$$

$$26. \frac{1}{5} = \frac{2x-2}{30}$$

STATION 5

Applications

DID NOT WRITE ON

THIS PAPER

27. A model of a submarine is 20 cm tall. If the real Sub is 45 ft tall and 720 ft long, how long is the model?
28. A flag pole casts a shadow 3 meters long. A woman near the pole casts a shadow 0.75 meters long. The woman is 1.5 meters tall. How tall is the flag pole?
29. A Tower casts a shadow of 64 feet. A 6-foot tall pole near the tower casts a shadow 8 feet long. How tall is the tower?
30. A rectangle is 3 in tall and 1 in wide. If it is enlarged to a height of 24 in then how wide will it be?
31. The money used in Saudi Arabia is called the Riyal. The exchange rate is \$2 = 7 Riyals. Find how many dollars you would receive if you exchanged 35 Riyals.

#1 missing angles!
30, 40 they match!

$\triangle ABC \sim \triangle PGL$ by AA

#2 $\frac{18}{3}$ $\frac{32}{4}$ $\frac{36}{5}$

do not have
same scale!
Not Similar

#3 $\frac{12}{8}$ $\frac{24}{16}$ $\frac{30}{20}$

all = $\frac{3}{2}$

$\triangle ABC \sim \triangle FDE$ by SSS

#4 $\frac{10}{20}, \frac{6}{12} = \frac{1}{2}$

$\triangle ABC \sim \triangle NMC$ by SAS

#5 $\triangle ABC \sim \triangle FCE$
by AA

#6 NOT SIMILAR

#7 $\frac{6}{18} = \frac{\frac{8}{24} = \frac{x}{21}}$ $x=7$

#8 $\frac{9}{x} = \frac{6}{14}$
 $x=21$

#8 $\frac{20}{12} \quad \frac{30}{18} \quad \frac{25}{15} \quad \frac{35}{x}$
 $x=21$

#7 $\frac{14}{35} \quad \frac{18}{45} \quad \frac{24}{x}$
 $x=60$

#11 $\frac{42}{49} \quad \frac{54}{63} \quad \frac{72}{x}$
 $x=84$

#12 $\frac{16}{x} \quad \frac{20}{5}$
 $x=4$

(#13) missing angles
match

$\triangle MNO \sim \triangle STR$ by AA

(#14) $\frac{5}{3} \quad \frac{12}{6} \quad \frac{13}{7}$

Scale does not match
NOT SIMILAR

(#15) $\triangle TUV \sim \triangle JKL$ by AA

(#16) $\frac{14}{49} \quad \frac{8}{28}$

scale factor = $\frac{2}{7}$

$\triangle LMV \sim \triangle UTV$ by SAS

(#17) $\frac{9}{21} \quad \frac{18}{42}$

scale factor $\frac{3}{7}$

$\triangle UVW \sim \triangle FGH$ by SAS

(#18) $\frac{42}{15} \quad \frac{70}{25} \quad \frac{84}{30}$

scale factor $\frac{14}{5}$

$\triangle TUV \sim \triangle QRS$ by SSS

#19 $21:35:56$

$\div 7$

$3:5:8$

#20 $1200:1500:1900$

$\div 100$

$12:15:19$

#21 $16:26:34$

$\div 2$

$8:13:17$

#22 $54:72:90$

$\div 9$

$6:8:10$

$\div 2$

$3:4:5$

or $\div 18$

#23 $\frac{9}{12} = \frac{x-4}{32}$

$288 = 12(x-4)$

$288 = 12x - 48$

$128 = x$

#24 $\frac{4}{10} = \frac{x+3}{25}$

$100 = 10(x+3)$

$100 = 10x + 30$

$13 = x$

#25 $\frac{x+1}{15} = \frac{2}{3}$

$30 = 3(x+1)$

$30 = 3x + 3$

$9 = x$

#26 $\frac{1}{5} = \frac{2x-2}{30}$

$30 = 5(2x-2)$

$30 = 10x - 10$

$4 = x$

#27

	Sub	model
tall	45	20
long	720	X

$$X = 320 \text{ cm}$$

#28

	flag pole	woman
height	X	1.5
shadow	3	.75

$$X = 6 \text{ m}$$

#29

	Tower	Pole
height	X	6
shadow	64	8

$$X = 48 \text{ ft}$$

#30

	original	enlargement
tall	3	24
wide	1	X

$$X = 8 \text{ in}$$

#31

	your money	exchange
\$	X	2
Riyal	35	7

$$X = 10 \text{ dollars}$$