

EXERCISE 6

1. Solve the following triangles. Find angles to the nearest degree and sides to one decimal place.

$b = 6.0$ $B = 50^\circ$
 $c = 7.8$

b: $b = 12.6$ $A = 63^\circ$
 $B = 27^\circ$

c: $a = 6.8$ $A = 25^\circ$
 $b = 14.5$

d: $c = 53.2$ $A = 41^\circ$
 $B = 49^\circ$

e: $b = 54.0$ $A = 48^\circ$
 $c = 80.7$

f: $a = 3.2$ $B = 67^\circ$
 $c = 8.3$

3a 34.2

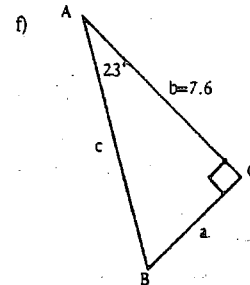
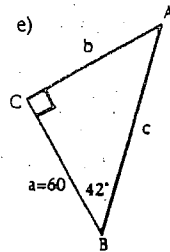
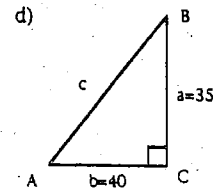
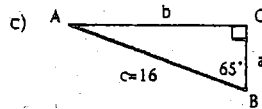
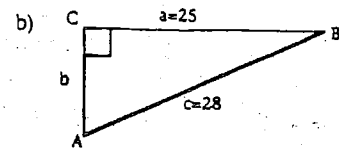
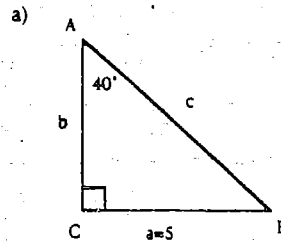
b 6.0

c 39.3

d 54.3

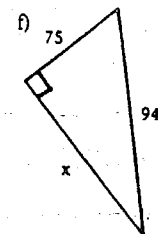
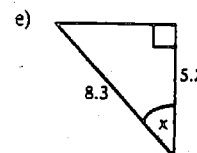
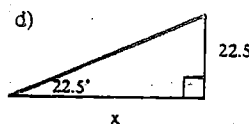
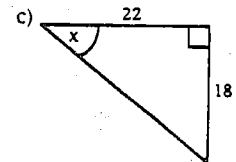
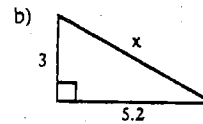
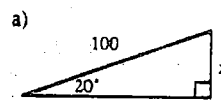
e 51.2

f 56.7



32

3. Find side x or angle x in each of the following. Round answers to one decimal place.



35


EUROPE:

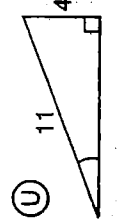
30°	42°	21°	24°	74°	2°	21°	24°	37°	49°	2°	42°	17°	32°	5°	2°
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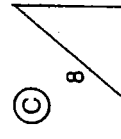
UNDERGROUND GARAGE:


46°	5°	9°	9°	28°	2°	42°	7°	46°	5°	9°	9°	7°	51°	5°	24°	68°	34°	2°
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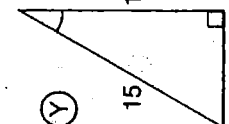
TO DECODE THE TWO DAFFYNITIONS ABOVE: For the first nine exercises, find the measure of the angle indicated. For the remaining exercises, find the angle measure needed to solve the problem. Round to the nearest degree. Each time the answer appears in the code, write the letter of the exercise below it.

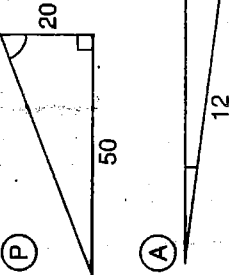
(N) 

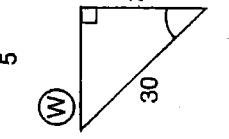
(U) 

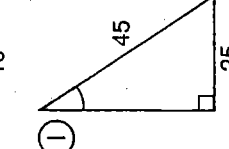
(C) 

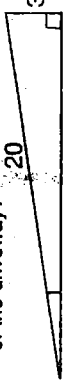
(O) 


(Y) 

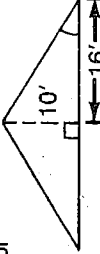
(P) 


(W) 

(I) 

(L) A driveway is built on an incline so that it rises 3 m over a distance of 20 m. What is the angle of elevation of the driveway? 

(R) Each step of a stairway rises 16 cm for a tread width of 36 cm. What angle does the stairway make with the floor? 

(B) A roof is constructed as shown in the diagram. Find the pitch (angle of elevation) of the roof. 

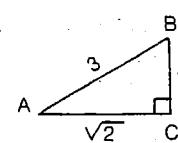
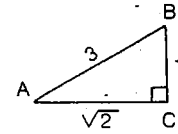
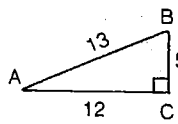
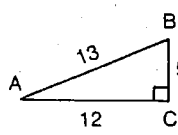
(T) A train decreases its altitude by 8 m when traveling along 200 m of track. Find the angle of depression of the track. 

Why Does The Headless Horseman Carry His Head Under His Arm?

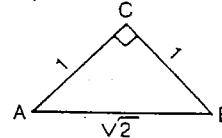
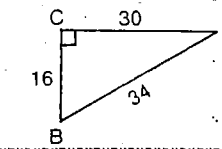
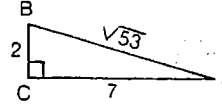
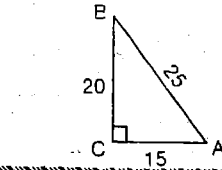
TO ANSWER THIS QUESTION, FOLLOW THESE INSTRUCTIONS:

For each exercise, select the correct ratio from the four choices given. Write the letter of the correct choice in the box that contains the number of the exercise.

- ① sin A ④ sin B
- ② cos A ⑤ cos B
- ③ tan A ⑥ tan B
- ⑦ sin A ⑩ sin B
- ⑧ cos A ⑪ cos B
- ⑨ tan A ⑫ tan B



- ⑬ sin A ⑰ sin B
- ⑭ cos A ⑱ sin A
- ⑮ tan A ⑲ cos A
- ⑳ cos A ㉑ tan A
- ㉒ sin A ㉓ cos A
- ㉔ tan A



15	3	21	7	14	16	20	12	1	18	13	4	9	10	23	2	19	24	8	6	11	22	5	17
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