

Omnimath II p. 497-499 G, 10, 16, 22, 26, 32, 38, 42,

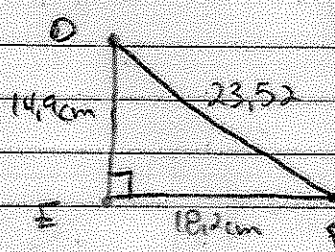
{ 43 a 54
 { 43 a 48, 50 a 53

60. $\sin 50^\circ = \frac{99}{w}$ 10. $\cos x = \frac{121}{187}$ 16. $r^2 = 83^2 + 128^2 - 2(83)(128) \cos 10^\circ$
 $w = 129,2^\circ$ $x = 49,67^\circ$ $r = 16,5$

22. $\frac{29,5}{\sin E} = \frac{47,6}{\sin 108^\circ}$

$m \angle E = 36,12^\circ$

26.



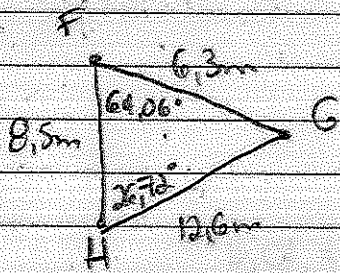
$14,9^2 + 18,2^2 = e^2$
 $e = 23,52$

$\sin F = \frac{14,9}{23,52}$

$m \angle F = 39,3^\circ$

$m \angle D = 59,69^\circ$

32.



$a^2 = b^2 + c^2 - 2bc \cos A$

$6,3^2 = 8,5^2 + 12,6^2 - 2(8,5)(12,6) \cos A$

$A = 26,72^\circ$

$\frac{6,3}{\sin 26,72^\circ} = \frac{12,6}{\sin F}$

$F = 64,06^\circ$

$180^\circ - 26,72^\circ - 64,06^\circ = 89,22^\circ$

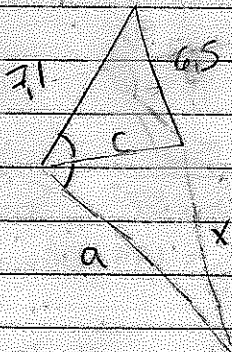
? 38. $x = ?$

$6,5^2 = 7,3^2 + c^2 - 2(7,3)c \cos \theta$

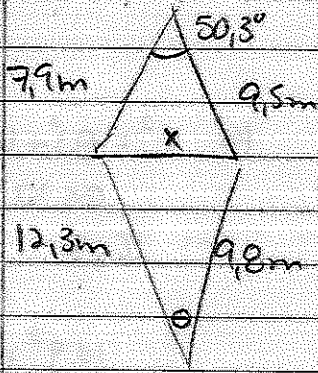
$x^2 = c^2 + a^2 - 2(a)(c) \cos \theta$

$-11,04 = c^2 - 14,6c \cos \theta$

$0 = c^2 - 14,6c \cos \theta + 11,04$



42.



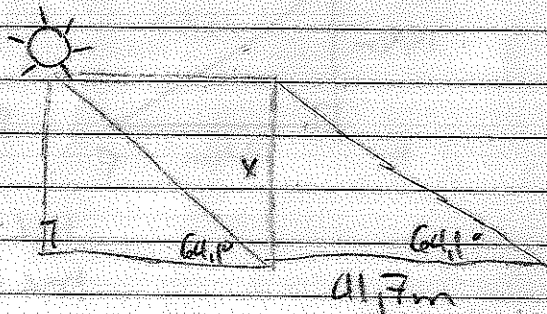
$$x^2 = 7,9^2 + 9,5^2 - 2(7,9)(9,5) \cos 50,3$$

$$x = 7,54$$

$$7,54^2 = 12,3^2 + 9,8^2 - 2(12,3)(9,8) \cos \theta$$

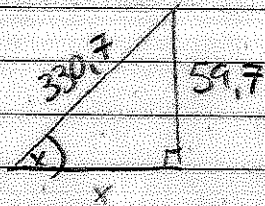
$$\theta = 37,80^\circ$$

43.



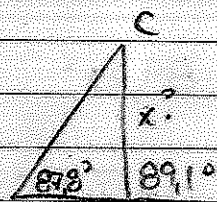
$$\operatorname{tg} 64,1^\circ = \frac{x}{41,7} = 8,88 \text{ m}$$

44.



$$\sin x = \frac{59,7}{330,7} = 0,18$$

45.



$$\frac{x}{\sin 87,8} = \frac{703}{\sin 1,3}$$

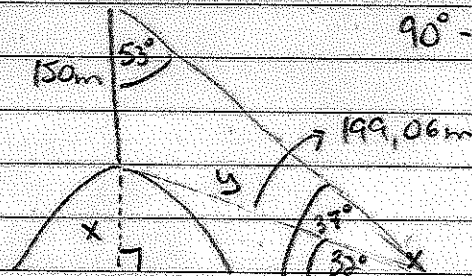
$$x = 30963 \text{ km}$$

B 703 km A

$$180^\circ - 89,1^\circ = 90,9^\circ$$

$$180^\circ - 87,8^\circ - 90,9^\circ = 1,3^\circ$$

46.



$$90^\circ - 37^\circ = 53^\circ$$

$$\frac{150}{\sin 37^\circ} = \frac{y}{\sin 53^\circ}$$

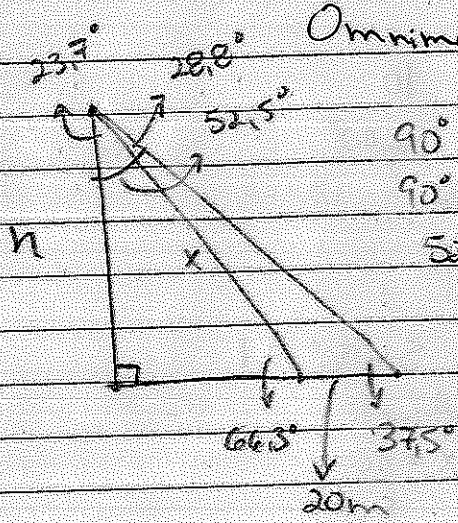
$$y = 199,06 \text{ m}$$

$$\sin 32^\circ = \frac{x}{199,06}$$

$$x = 105,49$$

la hauteur de la colline est de 105,49 m

47.



Omnimath II p 497-499 # 43 à 54

$$90^\circ - 66,3^\circ = 23,7^\circ$$

$$90^\circ - 37,5^\circ = 52,5^\circ$$

$$52,5^\circ - 23,7^\circ = 28,8^\circ$$

$$\frac{20}{\sin 28,8} = \frac{x}{\sin 37,5}$$

$$x = 25,27$$

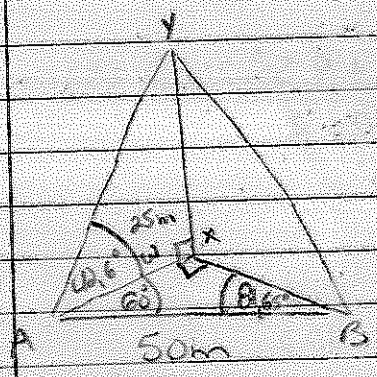
$$\sin 66,3^\circ = \frac{h}{25,27}$$

$$h = 23,14 \text{ m}$$

la fusée a atteint 23,14m

48.

AB = 50m



$$\cos 60^\circ = \frac{w}{50}$$

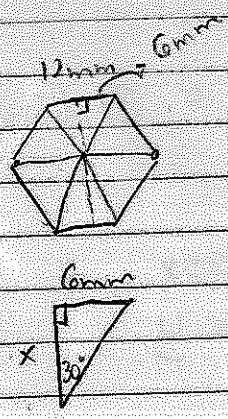
$$w = 25$$

la hauteur de la tour de la paix est de 23m.

$$\tan 42,6^\circ = \frac{y}{25}$$

$$y = 23 \text{ m}$$

50.



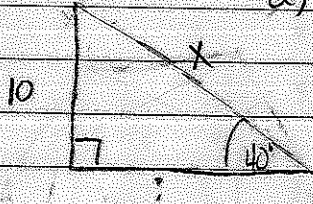
$$360^\circ \div 6 = 60^\circ$$

$$\tan 30^\circ = \frac{6 \text{ mm}}{x}$$

$$x = 10,39 \text{ mm}$$

$$10,39 \text{ mm} \times 2 = 20,78 \text{ mm}$$

51.



a)

$$\frac{x}{\sin 90^\circ} = \frac{10}{\sin 40^\circ}$$

$$x = 15,6$$

$$b) \sin 40^\circ = \frac{10}{x}$$

$$x = 15,6^\circ$$

$$c) \sin 90^\circ = 1$$

$$\text{denn:}$$

$$x = \frac{10}{\sin 40^\circ}$$

$$52. a) x^2 = 7,3^2 + 5,2^2 - 2(7,3)(5,2) \cos 90^\circ$$

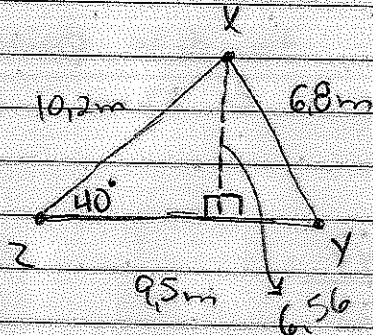
$$x = 9$$

$$b) 5,2^2 + 7,3^2 = x^2$$

$$x = 9$$

$$c) \text{Can } \cos 90^\circ = 0$$

53.



$$6,8^2 = 10,2^2 + 9,5^2 - 2(10,2)(9,5) \cos z$$

$$0,76 = \cos z$$

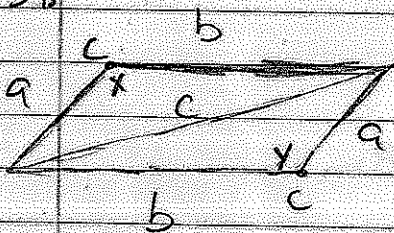
$$z = 40^\circ$$

$$\sin 40^\circ = \frac{\text{opp}}{10,2}$$

$$\text{opp} = 6,56$$

$$A = \frac{b \times h}{2} = \frac{9,5 \text{m} \times 6,56 \text{m}}{2} = 31,14 \text{m}^2$$

54.



$$c^2 = a^2 + b^2 - 2ab \cos x$$

$$c^2 = a^2 + b^2 - 2ab \cos y$$

$$\cos x = \cos y$$