NAME : _____

CLASS : _____

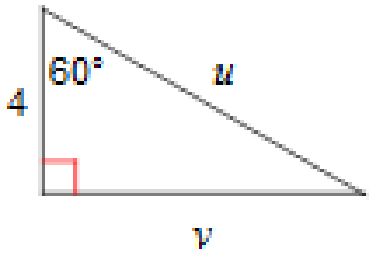
DATE : _____

Homework 5.1 due Monday 1/11*3 Problems Require Work*

15 Questions

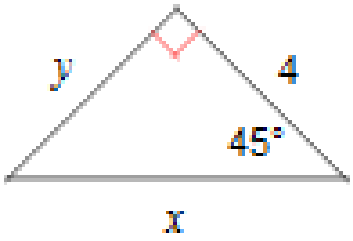
1. When should we use the Pythagorean Theorem?

- [ ] a) When a right triangle has an angle measure of 30 degrees
- [ ] b) When a right triangle has an angle measure of 45 degrees
- [ ] c) When a right triangle has two sides provided and we need the third side
- [ ] d) When a triangle has a missing side

2. 

I have been given the short leg in this 30-60-90 triangle. How do I find the length of the hypotenuse?

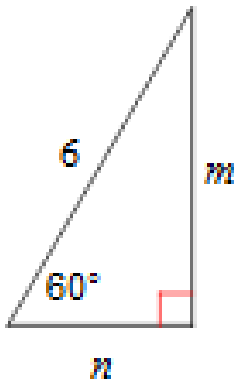
- [ ] a) Multiply 4 by 2
- [ ] b) Multiply 4 by √3
- [ ] c) Multiply 4 by √2
- [ ] d) Divide 4 by √3

3. 

In this 45-45-90 triangle, I have been given the length of a leg. How do I find the length of the hypotenuse?

- [ ] a) It is the same length as the given leg.
- [ ] b) Multiply that leg's length by √2.
- [ ] c) Multiply that leg's length by 2.
- [ ] d) Divide that leg's length by √2.

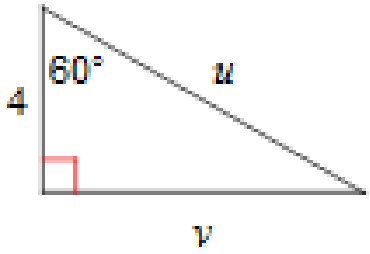
4.



I have been given the hypotenuse in this 30-60-90 triangle. How do I find the short leg?

- [ ] a) Multiply 6 by 2
- [ ] b) Multiply 6 by √3
- [ ] c) Divide 6 by 2
- [ ] d) Divide 6 by √3

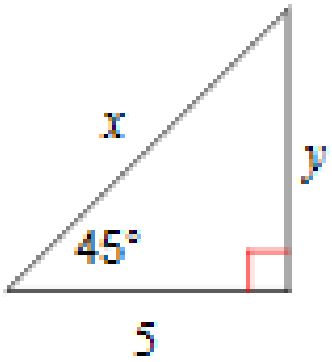
5.



I have been given the short leg in this 30-60-90 triangle. How do I find the longer leg?

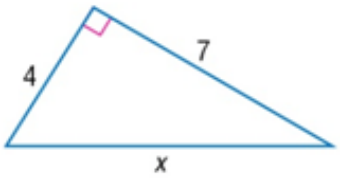
- [ ] a) Multiply 4 by 2
- [ ] b) Multiply 4 by √3
- [ ] c) Multiply 4 by √2
- [ ] d) Divide 4 by 2

6.



In this 45-45-90 triangle, I have been given a leg, so to find the other leg I...

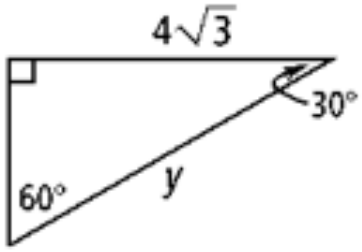
- [ ] a) Multiply that leg by 2
- [ ] b) Use the same length for the second leg
- [ ] c) Multiply that leg by √2
- [ ] d) Divide that leg by √2

7. 

Use the Pythagorean Theorem to solve for xWORK REQUIRED

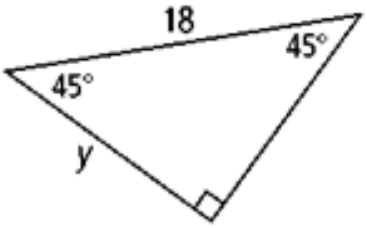
- [ ] a) 11
- [ ] b) 65
- [ ] c) 5.7
- [ ] d) 8.1

8. Find the value of y.

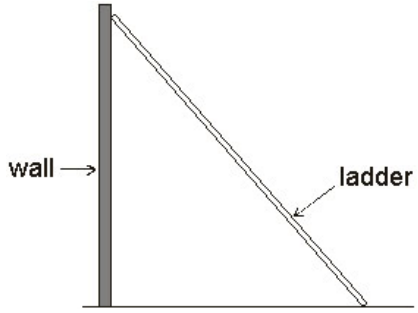


- [ ] a) 8
- [ ] b) 4
- [ ] c) $2\sqrt{3}$
- [ ] d) $8\sqrt{3}$

9. Find the value of y.

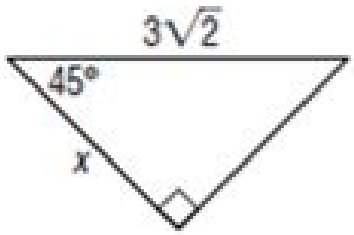


- [ ] a) 9
- [ ] b) $18\sqrt{2}$
- [ ] c) $9\sqrt{2}$
- [ ] d) $(9\sqrt{2})/2$

10. 

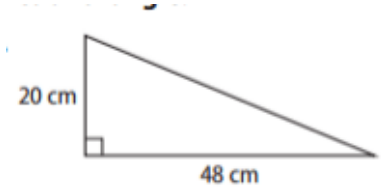
If a ladder is 15 feet in length and reaches to the top of a wall that is 11 feet in height, how far from the base of the wall is the ladder positioned? WORK REQUIRED

- [ ] a) 10.2 feet
- [ ] b) 104 feet
- [ ] c) 18.6 feet
- [ ] d) 4 feet

11. 

Find the value of x.

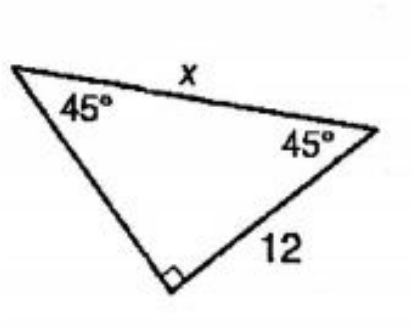
- [ ] a) 3 sqrt(2)
- [ ] b) 3
- [ ] c) 6 sqrt(2)
- [ ] d) 6

12. 

Find the length of the missing side.WORK REQUIRED

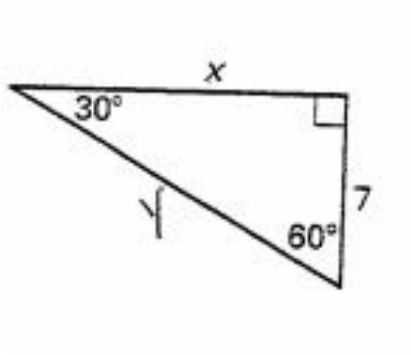
- [ ] a) 25 cm
- [ ] b) 42 cm
- [ ] c) 52 cm
- [ ] d) 48 cm

13. What is the value of x?



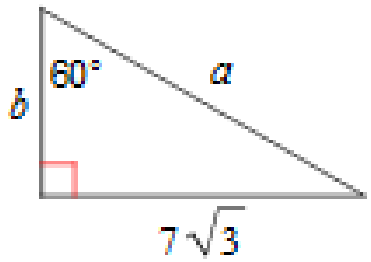
- [ ] a) $12\sqrt{2}$
- [ ] b) $2\sqrt{12}$
- [ ] c) 24
- [ ] d) 2

14. What is the value of y?



- [ ] a) 14
- [ ] b) $2\sqrt{7}$
- [ ] c) $7\sqrt{2}$
- [ ] d) 7

15. What are a and b in this 30-60-90 triangle?



- [ ] a) b=3.5√3 a = 7√3
- [ ] b) b = 7 a = 7√2
- [ ] c) b = 7 a = 14
- [ ] d) b = 7√3 a = 14√3