

## **Honors Geometry/Burrell**

The assignments included in this packet are from your textbook and are optional. By completing the work, your grade will improve. Details/specifics about grading are forthcoming. There are no penalties for not doing the work. You must show your work for credit. Another packet will be given out in two weeks. Please email me at [kcburrell@dcboe.com](mailto:kcburrell@dcboe.com) with any questions.

Honor's Geometry

Parallelograms

pp206-243 in Geometry textbook

Assignment:

p. 213 # 9-12, 21-24, 41-43, 46, 47, 51, 52

p. 220 # 3-5, 11-13, 17-19, 26, 35, 36

p. 228 # 6, 7, 14, 15, 18-23, 45-47

p. 238 # 4, 5, 9, 10

Transformations

pp 108-115

Assignment:

p. 111 # 1-6, 13-18, 26, 27, 29, 30

Circles

pp 390-425, 572-574

Assignment:

p. 395 # 9, 10, 16, 17

p. 404 # 11-18, 25-32, 38, 39, 48, 49

p. 411 # 2-10, 12-14

p. 415 # 2-17

p. 420 # 2-15, 17-22

p. 575 # 1-8, 10-17, 19, 20, 22-26, 30-32

## Honors Geometry

Below is a list of topics/units that were scheduled for the 2nd 9 weeks:

Right Triangles (special right and trigonometry)

Parallelograms

Transformations

Circles (segments, angles, arc length, area of sector, equations of circles)

Volume

Slope with parallel and perpendicular/equations of lines with parallel and perpendicular/ partitions/perimeter and area on coordinate plane

# QUIZZIZZ

NAME : \_\_\_\_\_

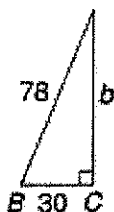
## Special Right Triangles and Pyth Thm

CLASS : \_\_\_\_\_

### 37 Questions

DATE : \_\_\_\_\_

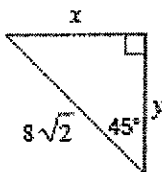
1.



Find the missing side

 a) 108 b) 48 c) 83.6 d) 72

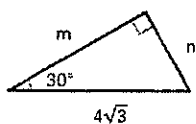
2.



What is the length of y in this 45-45-90 triangle?

 a) 4 b) 8 c)  $4\sqrt{2}$  d)  $8\sqrt{2}$ 

3.



Find the length of m.

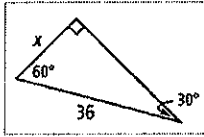
 a) 12 b)  $2\sqrt{3}$  c) 4 d) 6

4. The length of the hypotenuse of a 30-60-90 triangle is 4 units. Find the perimeter of the triangle.

Leave your answer in radical form.

- a)  $12\sqrt{3}$   b)  $2+6\sqrt{3}$   
 c)  $6+2\sqrt{3}$   d)  $8\sqrt{3}$

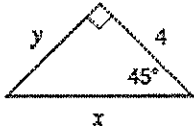
5.



Find the value of  $x$ .

- a) 18  b) 12  
 c)  $36\sqrt{3}$   d)  $18\sqrt{3}$

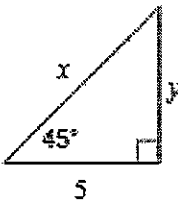
6.



What is the length of  $x$  in this 45-45-90 triangle?

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

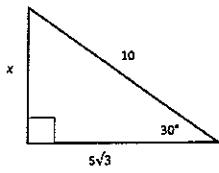
7.



What is the length of  $y$  in this picture?

- a)  $5\sqrt{2}$   b) 90  
 c) 5  d) 45

8.



Find x.

a)  $\sqrt{3}$

b)  $10\sqrt{3}$

c) 10

d) 5

9. Do the segment lengths 15, 12, and 9 form a right triangle?

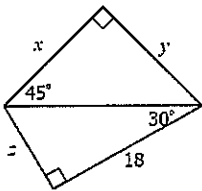
a) No

b) Yes

c) Pythagoras

d) Maybe

10.



Find the value of x.

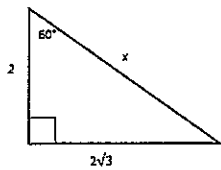
a) 14.7

b) 18

c) 24

d) 10.4

11.



Find x.

a)  $\sqrt{3}$

b)  $2\sqrt{2}$

c) 4

d) 2

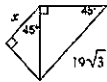
12. A soccer field is a rectangle 90 meters wide and 120 meters long. The coach asks players to run from one corner to the corner diagonally across. What is this distance?

- a) 180 m  b) 150 m  
 c) 210 m  d) 79 m

13. Classify the triangle as acute, obtuse, or right. 7, 15, 21

- a) Right  b) Acute  
 c) Obtuse

14.

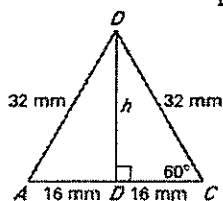


Find the length of  $m$ .

- A)  $\frac{57\sqrt{2}}{2}$  B) 76  
 C)  $\frac{19\sqrt{3}}{2}$  D)  $38\sqrt{6}$

- a) B  b) C  
 c) A  d) D

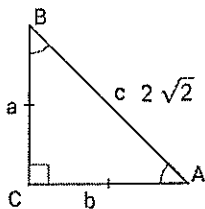
15. You are making a guitar pick that resembles an equilateral triangle with side lengths of 32 millimeters.



What is the approximate height of the pick? (hint: use 30-60-90 theorems)

- a)  $32\sqrt{3}$   b)  $16\sqrt{3}$   
 c)  $16\sqrt{2}$   d) 32

16.



Find a.

- a)  $2\sqrt{3}$ 
 b) 2
- c) 4
  d)  $2/\sqrt{2}$

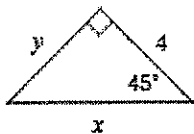
17. Which equation can be used to solve the word problem: the diagonal of a t.v. is 40 inches and the height is 30. How wide is the t.v.?

- a)  $30^2 + b^2 = 40^2$ 
 b)  $30^2 + 40^2 = c^2$
- c)  $40^2 + 30^2 = c^2$ 
 d)  $a^2 + 40^2 = 30^2$

18. A piece of paper that Brittany has is 11 inches tall and 8 inches wide. She draws a straight line diagonally across the paper. How long is the line she drew?

- a) 12.4 in
  b) 14.3 in
- c) 7.5 in
  d) 13.6 in

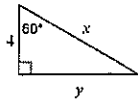
19. In this 45-45-90 triangle, I have been given the length of a leg. How do I find the length of the hypotenuse?



- a) Multiply that leg's length by  $\sqrt{2}$ .
  b) Divide that leg's length by  $\sqrt{2}$ .
- c) It is the same length as the given leg.
  d) Multiply that leg's length by 2.



20.



- A)  $x = 8, y = 8\sqrt{3}$   
 B)  $x = 8\sqrt{3}, y = 8$   
 C)  $x = 8, y = 4\sqrt{3}$   
 D)  $x = 4\sqrt{3}, y = 4\sqrt{2}$

You are making a guitar pick that resembles an equilateral triangle with side lengths of 32 millimeters.

What is the approximate height of the pick? (hint: use 30-60-90 theorems)

 a) C

 b) B

 c) D

 d) A

21. The foot of a ladder is placed 6 feet from a wall. If the top of the ladder rests 8 feet up on the wall, how long is the ladder?

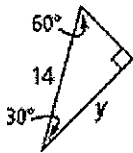
 a) 17 ft

 b) 10 ft

 c) 14 ft

 d) 100 ft

22.



Find the value of  $y$ .

 a)  $7\sqrt{3}$ 
 b) 7

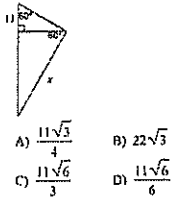
 c)  $(14\sqrt{3})/3$ 
 d)  $14\sqrt{3}$ 

23. A square tablecloth has a line of embroidered flowers along the diagonal. The tablecloth is 48 in. on each side. How long is the embroidery line? Round to the nearest inch.

 a)  $24\sqrt{2}$ 
 b)  $48\sqrt{2}$ 
 c) 34

 d) 68

24.



- A)  $\frac{11\sqrt{3}}{4}$
- B)  $22\sqrt{3}$
- C)  $\frac{11\sqrt{6}}{3}$
- D)  $\frac{11\sqrt{6}}{6}$

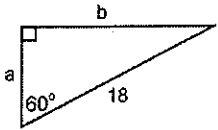
a) D

b) A

c) C

d) B

25.



Find a.

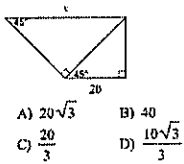
a)  $9\sqrt{3}$

b) 9

c)  $9\sqrt{2}$

d)  $2\sqrt{3}$

26.



- A)  $20\sqrt{3}$
- B) 40
- C)  $\frac{20}{3}$
- D)  $\frac{10\sqrt{3}}{3}$

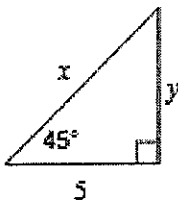
a) C

b) A

c) B

d) D

27.



What is the length of y in this picture?

a) 5

b)  $5\sqrt{2}$

c) 90

d) 45

28. Which set of side lengths does not form a right triangle?

a) 14, 15, 29

b) 38, 80, 90

c) 36, 77, 85

d) 16, 63, 65

29. A square has side length 95. What is the length of the diagonal of the square? Express your answer in simplest radical form.

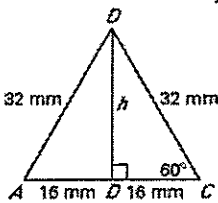
a)  $95\sqrt{2}$

b) 67.2

c)  $(95\sqrt{2})/2$

d) 134.4

30. You are making a guitar pick that resembles an equilateral triangle with side lengths of 32 millimeters.



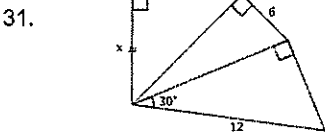
What is the approximate height of the pick? (hint: use 30-60-90 theorems)

a)  $16\sqrt{2}$

b)  $16\sqrt{3}$

c) 32

d)  $32\sqrt{3}$



a)  $6\sqrt{2}$

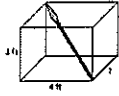
b)  $6\sqrt{3}$

c) 12

d) 6

32.

A square of 5.4 ft is inscribed in a wooden box as shown.



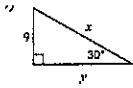
What is the approximate width of the base?

- a) 7 ft
- b) 5 ft
- c) 2 ft
- d) 3 ft

33. Which set of sides would make a right triangle?

- a) 8,10,12
- b) 5,12,13
- c) 5,10,12
- d) 4,5,6

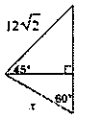
34.



- A)  $x = 18, y = 9\sqrt{3}$
- B)  $x = 18, y = \frac{27}{2}$
- C)  $x = 9\sqrt{2}, y = 9\sqrt{3}$
- D)  $x = 9\sqrt{2}, y = \frac{27}{2}$

- a) C
- b) A
- c) B
- d) D

35.



Find the missing side

- A)  $12\sqrt{6}$
- B)  $8\sqrt{6}$
- C)  $6\sqrt{2}$
- D)  $8\sqrt{3}$

- a) B
- b) C
- c) D
- d) A

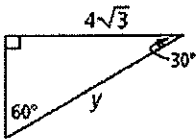
36.



- A)  $m = \frac{16\sqrt{3}}{3}$ ,  $n = 2\sqrt{2}$   
 B)  $m = 8$ ,  $n = 4\sqrt{2}$   
 C)  $m = \frac{16\sqrt{3}}{3}$ ,  $n = 4\sqrt{2}$   
 D)  $m = 8$ ,  $n = 2\sqrt{2}$

 a) B b) C c) D d) A

37.

Find the value of  $y$ . a) 8 b) 4 c)  $8\sqrt{3}$  d)  $2\sqrt{3}$

# QUIZIZZ

NAME : \_\_\_\_\_

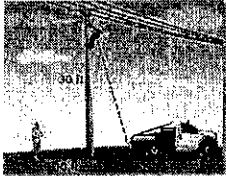
## Right triangles (special right and trig)

CLASS : \_\_\_\_\_

### 18 Questions

DATE : \_\_\_\_\_

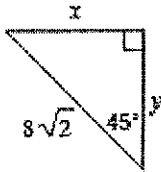
1.



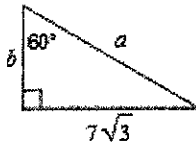
Is this an angle of elevation or an angle of depression?

 a) Angle of Elevation b) Neither c) Both d) Angle of Depression

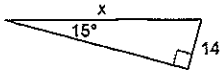
2.

What is the length of  $y$  in this 45-45-90 triangle? a) 8 b)  $8\sqrt{2}$  c) 4 d)  $4\sqrt{2}$ 

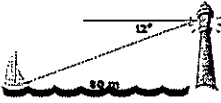
3.

What are  $x$  and  $y$  in this 30-60-90 triangle? a)  $b=3.5\sqrt{3}$   $a=7\sqrt{3}$  b)  $b=7\sqrt{3}$   $a=14\sqrt{3}$  c)  $b=7$   $a=7\sqrt{2}$  d)  $b=7$   $a=14$

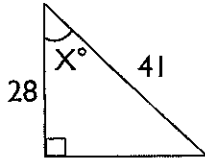
4.

Solve for  $x$ . Round to the nearest tenth. a) 54.1 b) 63.5 c) 3.6 d) 74.9

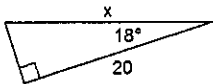
5.

The angle of  $12^\circ$  is a(n) a) neither b) angle of depression c) both d) angle of elevation

6.

Set up the problem so that you can solve for  $X$ . a)  $\cos X = 28/41$  b)  $\tan X = 41/28$  c)  $\sin X = 41/28$  d)  $\sin X = 28/41$ 

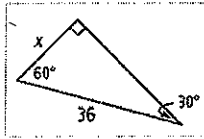
7.

Solve for  $x$ . Round to the nearest tenth. a) 24.3 b) 19.0 c) 20.2 d) 21.0

16. When the angle of elevation of the sun is 78 degrees, a statue casts a shadow that is 6m long. How far is the top of the statue to the end of its shadow?

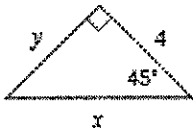
- a) 28.9 m
- b) 1.2 m
- c) 6.1 m
- d) 28.2 m

17.

Find the value of  $x$ .

- a) 12
- b) 18
- c)  $36\sqrt{3}$
- d)  $18\sqrt{3}$

18.

What is the length of  $x$  in this 45-45-90 triangle?

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