

New Bedford Public Schools  
Division of Adult & Continuing Education

## **New Bedford High School Evening Extension**

2019 – 2020 School Year  
Trimester III

Learning Packet #4  
for  
**Geometry**

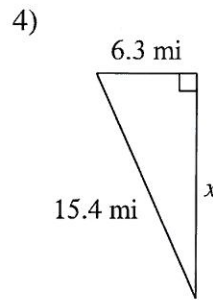
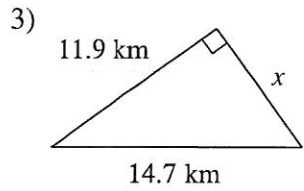
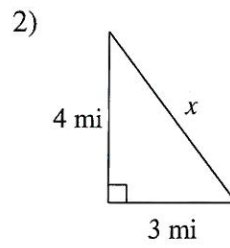
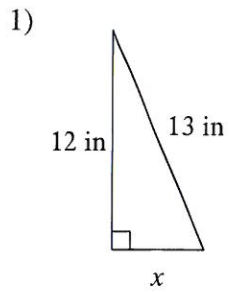
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New Bedford High School Evening Extension  
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New Bedford, MA 02740  
[egalves@newbedfordschools.org](mailto:egalves@newbedfordschools.org)

Email Mr. Alves with questions/concerns regarding this packet at the email address listed above.

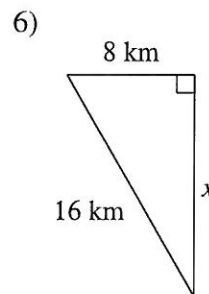
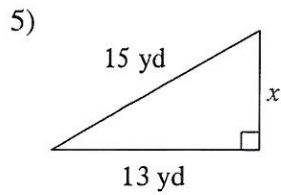
Due date: May 12, 2020

The Pythagorean Theorem and Its Converse

Find the missing side of each triangle. Round your answers to the nearest tenth if necessary.



Find the missing side of each triangle. Leave your answers in simplest radical form.



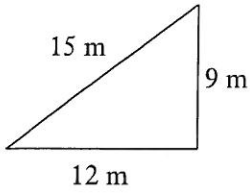
Find the missing side of each right triangle. Side  $c$  is the hypotenuse. Sides  $a$  and  $b$  are the legs. Leave your answers in simplest radical form.

7)  $a = 11$  m,  $c = 15$  m

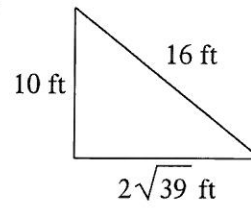
8)  $b = \sqrt{6}$  yd,  $c = 4$  yd

State if each triangle is a right triangle.

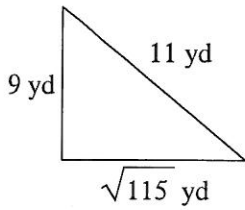
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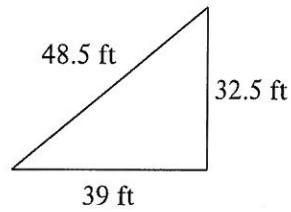
10)



11)



12)



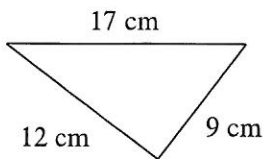
State if the three sides lengths form a right triangle.

13) 10 cm, 49.5 cm, 50.5 cm

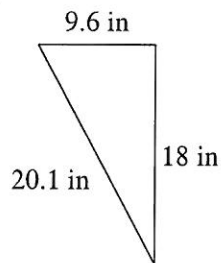
14) 9 in, 12 in, 15 in

State if each triangle is acute, obtuse, or right.

15)



16)



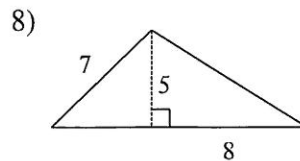
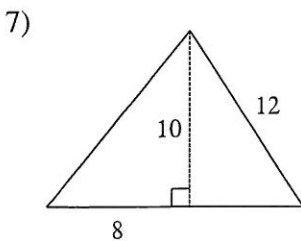
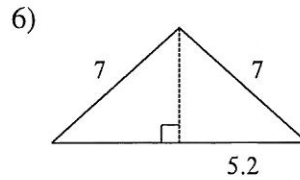
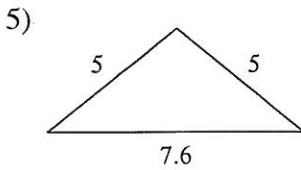
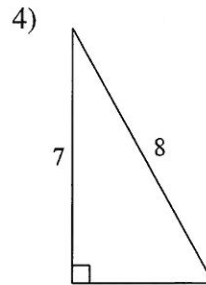
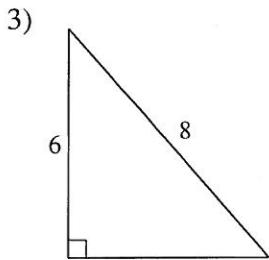
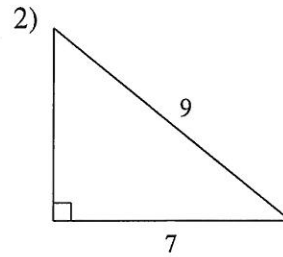
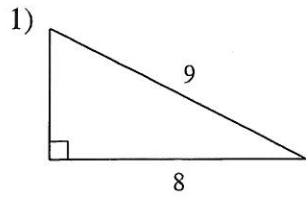
State if the three side lengths form an acute, obtuse, or right triangle.

17) 6 mi,  $2\sqrt{55}$  mi, 17 mi

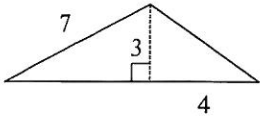
18) 4.8 km, 28.6 km, 29 km

## Multi-Step Pythagorean Theorem Problems

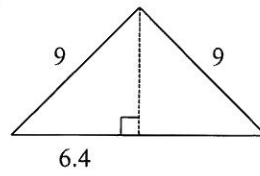
Find the area of each triangle. Round intermediate values to the nearest tenth. Use the rounded values to calculate the next value. Round your final answer to the nearest tenth.



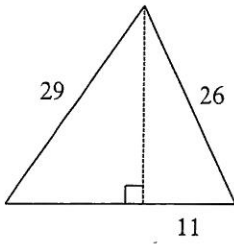
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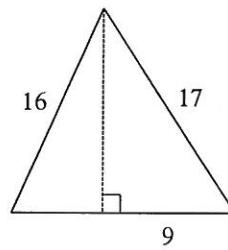
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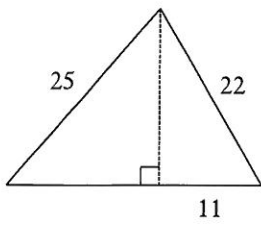
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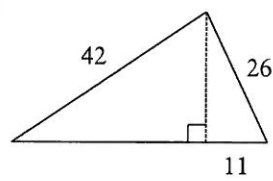
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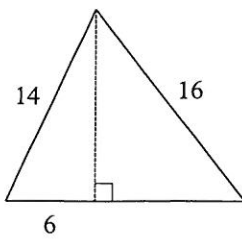
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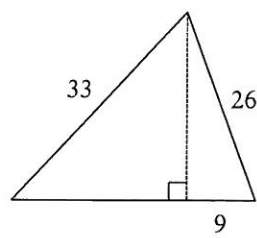
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15)



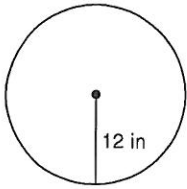
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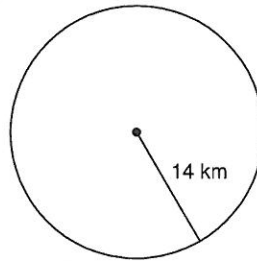
## Circumference and Area of Circles

Find the area of each. Use your calculator's value of  $\pi$ . Round your answer to the nearest tenth.

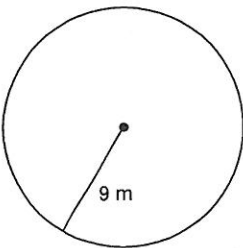
1)



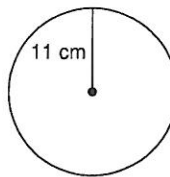
2)



3)



4)



5) radius = 2.6 in

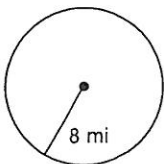
6) radius = 34.1 in

7) radius = 13.2 km

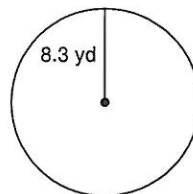
8) radius = 29.9 km

Find the circumference of each circle. Use your calculator's value of  $\pi$ . Round your answer to the nearest tenth.

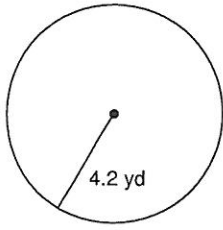
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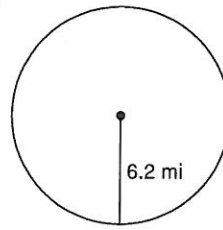
10)



11)



12)



13) radius = 5.2 ft

14) radius = 11.1 ft

15) radius = 9.5 in

16) radius = 9.3 in

**Find the radius of each circle. Use your calculator's value of  $\pi$ . Round your answer to the nearest tenth.**

17) circumference = 62.8 mi

18) circumference = 69.1 yd

19) circumference = 12.6 yd

20) circumference = 25.1 ft

**Find the diameter of each circle. Use your calculator's value of  $\pi$ . Round your answer to the nearest tenth.**

21) area = 201.1 in<sup>2</sup>

22) area = 78.5 ft<sup>2</sup>

**Find the circumference of each circle.**

23) area =  $64\pi$  mi<sup>2</sup>

24) area =  $16\pi$  in<sup>2</sup>

**Find the area of each.**

25) circumference =  $6\pi$  yd

26) circumference =  $22\pi$  in

**Critical thinking question:**

27) Find the radius of a circle so that its area and circumference have the same value.