

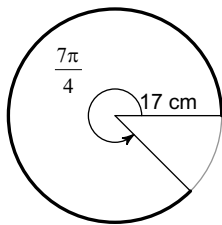
SM2 HW #8-11 (Test Preview #2)

Convert each degree measure into radians.

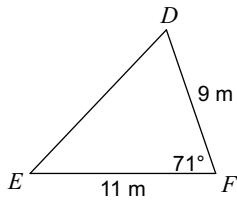
1) 330°

Find the length of each arc (exact answer with a reduced fraction).

3)

**Find the area of each triangle to the nearest tenth.**

5)

**Simplify. Your answer should contain only positive exponents.**

7) $(3a^{-1}b^{-2})^2$

8) $\frac{2xy}{2x^3y^{-3}}$

Write each expression in exponential form.

9) $(\sqrt[4]{5r})^7$

Write the slope-intercept form of the equation of the line through the given points.

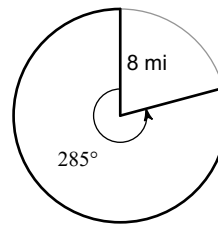
10) through: $(4, -5)$ and $(5, -3)$

Convert each radian measure into degrees.

2) $\frac{5\pi}{6}$

Find the area of each sector. (Exact answer with reduced fraction)

4)

**Use the information provided to write the "center of the circle" form equation of each circle.**

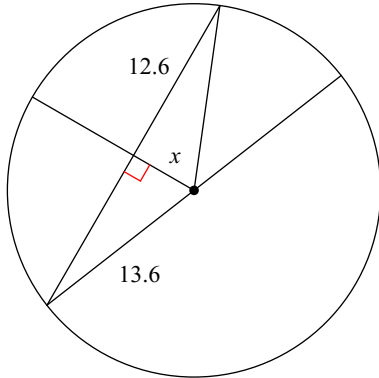
6) $x^2 + y^2 - 14x + 18y + 105 = 0$

Simplify.

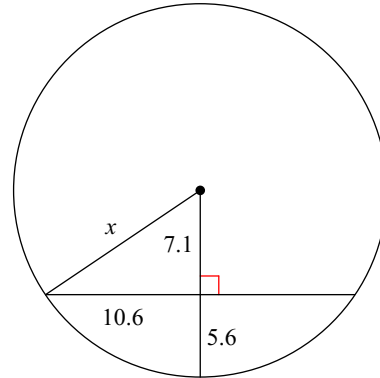
11) $5\sqrt{32xy}$

Find the length of the segment indicated. Round your answer to the nearest tenth if necessary.

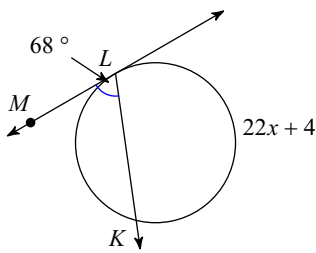
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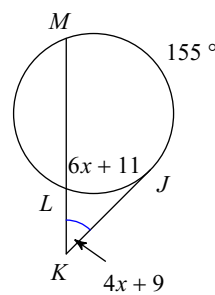
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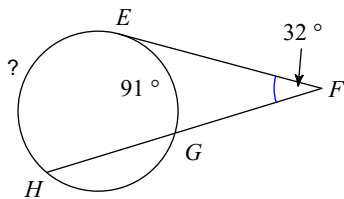
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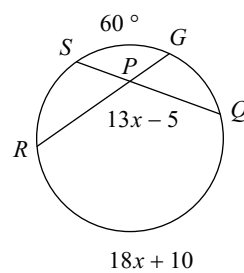
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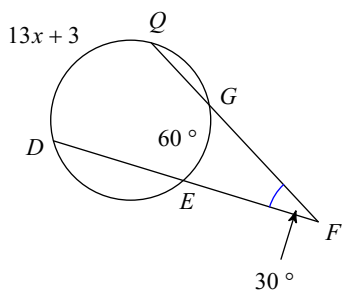
16)



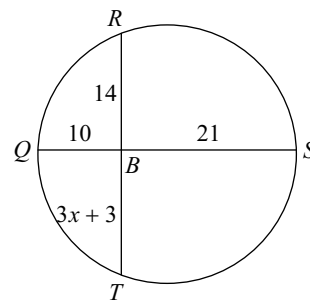
17)



18)



19) Find BT



20) How many different 1st, 2nd, and 3rd place finishers are possible for a race with 10 people in it?

21) How many different license plates are possible if the license plates have 3 digits followed by 3 letters? (use replacement).

a) State if each scenario involves a permutation or a combination

b) Find the number of possibilities.

22) There are 10 applicants for two jobs:
computer programmer and software tester.

23) Mary has homework assignments in seven subjects. She only has time to do four of them.

24) A car dealership sells Ford and Honda automobile. There are 12 black Fords and 7 silver Fords on the car lot. There are 8 black Hondas and 6 silver Hondas.

a) Construct a 2-way table. The first row is Ford and the first column is black.

b) Construct a Venn diagram for this situation.

c) $P(B \text{ and } H) = ?$

d) $P(H / B) = ?$

e) $P(H \text{ or } S) = ?$

f) $P(F) = ?$

Find the probability of each event.

25) There are eleven songs on your playlist. Six of them are country and five are pop. With random shuffle and no repetition, you listen to six songs. What is the probability that you listened to all country songs?

26) A small pond contains seven catfish and three bluegill. If seven fish are caught at random, what is the probability that all of them are catfish?

Find the probability.

27) A bag contains three red marbles and five blue marbles. You randomly pick a marble and then pick a second marble without returning the marbles to the bag. Both marbles are red.

28) There are five nickels and seven dimes in your pocket. You randomly pick a coin out of your pocket and place it on a counter. Then you randomly pick another coin. The first coin is a nickel and the second coin is a dime.

Events A and B are independent. Find the missing probability.

29) $P(A) = \frac{3}{10}$ $P(A \text{ and } B) = \frac{3}{50}$ $P(B) = ?$

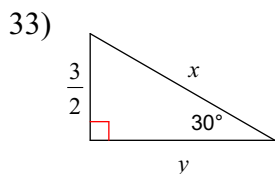
30) $P(B) = \frac{7}{20}$ $P(A \text{ and } B) = \frac{21}{200}$ $P(A) = ?$

Find the missing probability.

31) $P(B) = \frac{1}{2}$ $P(A|B) = \frac{27}{50}$ $P(A \text{ and } B) = ?$

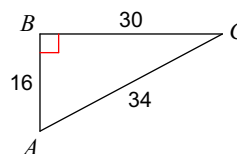
32) $P(B) = \frac{1}{4}$ $P(A \text{ and } B) = \frac{3}{100}$ $P(A|B) = ?$

Find the missing side lengths. Leave your answers as radicals in simplest form.

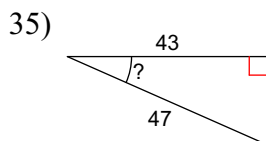


Find the value of each trigonometric ratio.

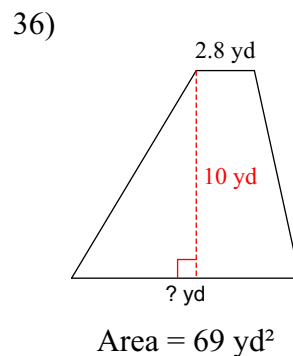
34) $\tan C$



Find the measure of the indicated angle to the nearest degree.



Find the missing measurement. Round your answer to the nearest tenth.



Find the surface area of each figure. Round your answers to the nearest hundredth, if necessary.

