$\qquad$ Period $\qquad$
Find each measurement indicated. Round your answers to the nearest tenth.

1) Find BC

2) Find $m \angle C$

3) $\$ 4000$ was placed into an account that pays $3.5 \%$ annual interest compounded continuously;
a) How many years (to the nearest $1 / 10$ ) will it take for the money in the account to double?
b) How much money will be in the account after 10 years?
4) Solve:
$2 r^{2}-r-15=0$
5) Solve:

$$
\log _{4} x-\log _{4}(x-1)=2
$$

5) Solve:
$\frac{1}{n}=\frac{5 n+10}{n}-\frac{2}{n^{2}}$
6) Solve. Round to the 4th decimal place.
$15^{n+1}+9=37$

Find the measure of each side indicated.
Round to the nearest tenth.
8)


Find the value of the trig function indicated.
9) $\sec \theta$

10) Convert to radians:
$195^{\circ}$
11) Convert to degrees:

$$
-\frac{11 \pi}{18}
$$

State the number of possible triangles that can be formed using the given measurements.
12) $m \angle A=17^{\circ}, c=34 \mathrm{~m}, a=30 \mathrm{~m}$
13) $m \angle C=53^{\circ}, b=18 \mathrm{yd}, c=9 \mathrm{yd}$

Find each measurement indicated. Round your answers to the nearest tenth. Hint: Draw the picture. If you have the ambiguous case, you must determine how many triangles are possble. For two triangles the angle will have two different measures.
14) $m \angle A=74^{\circ}, c=34 \mathrm{mi}, a=33 \mathrm{mi}$
Find $m \angle B$
15) $m \angle B=31^{\circ}, a=27 \mathrm{mi}, b=7 \mathrm{mi}$ Find $m \angle C$

Find the length of each arc.
16)


Find the area of each sector.
17)


Find each measurement indicated. Round your answers to the nearest tenth.
18) Find $m \angle A$

19) Find $A B$


Find the area of each triangle to the nearest tenth.
20)

21)


