$\qquad$ Date: $\qquad$ Period: $\qquad$

## Focus on Geometry, Unit 10 practice test

Show your work and write the answer in the answer box
Find the value of $x$
1)

2)


1) $\qquad$
2) $\qquad$
3) $\qquad$
4) $\qquad$
5) $\qquad$
6) $\qquad$
7) $\qquad$
Find the measure of each exterior angle in the polygon specified:
8) regular pentagon
9) regular 24 -gon

Write the formula to find the area of each polygon given:
5) square
8) circle
6) rectangle or parallelogram
7) triangle
10) rhombus

Find the area of each polygon or shaded area below. Include the units in your answer.
11)

12)


13)
14)

15)

16)
10) $\qquad$
11) $\qquad$
12) $\qquad$
13) $\qquad$
14) $\qquad$
15) $\qquad$
16) $\qquad$
17)

18)

17) $\qquad$
18) $\qquad$
19) $\qquad$
20) $\qquad$
21) $\qquad$
22) $\qquad$
23) $\qquad$

## EC) Write below the

19) The area of a trapezoid is $120 \mathrm{~cm}^{2}$. Its height is 7 cm and one of its bases is 10 cm . What is the measure of the other side?
20) The area of a sector is $5 \pi \mathrm{in}^{2}$, the area the circle that is $25 \pi \mathrm{in}^{2}$. What is the measure of the central angle that includes the sector?
21) A rectangular garden in Mrs. Dorothy's house has a length of 100 meters and a width of 50 meters. A square swimming pool is to be constructed inside the garden. Find the length of one side of the swimming pool if the remaining area (not occupied by the pool) is equal to one half the area of the rectangular garden.
22) Charlie is trying to replace his carpet with tile. He found a tile in the shape of a rhombus with diagonals measuring 12 inches and 14 inches. If the area of his floor is 200 square feet, how many tiles should he order?

Extra credit: Explain below how the formula for the area of a circle or parallelogram is derived.

