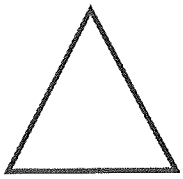
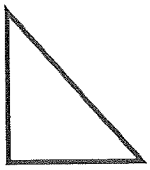
Introducing Area- Notes

Deriving Area Formulas

Parallelogram:

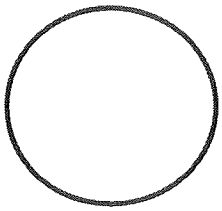
Triangle:





Trapezoid:

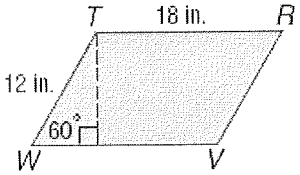
Circle:



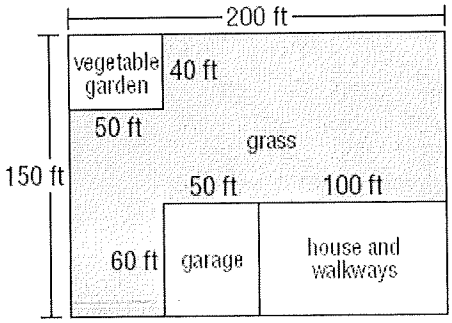
Examples

Find the perimeter or circumference and the area of each figure.

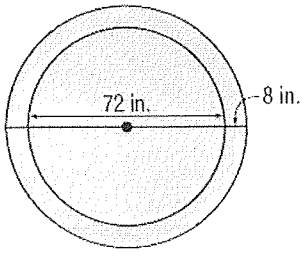
1.



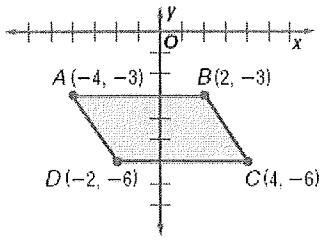
2. George's family want to sod a a portion of their yard. Find the number of square yards of grass needed to sod the yard (the shaded region).



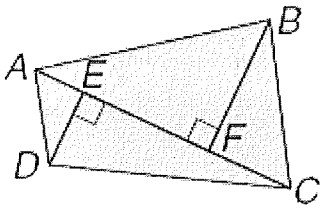
3. An outdoor accessories company manufactures circular covers for outdoor umbrellas. If the cover is 8 inches longer than the umbrella on each side, find the area of the cover in square yards.



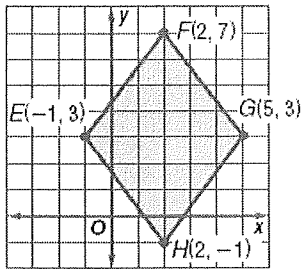
3 **COORDINATE GEOMETRY** The vertices of a quadrilateral are $A(-4, -3)$, $B(2, -3)$, $C(4, -6)$, and $D(-2, -6)$.
Determine if it is a square, rectangle or parallelogram, then find the area .



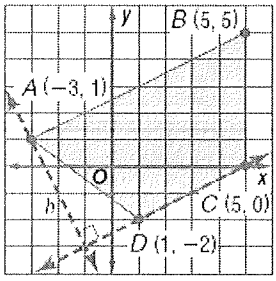
4 . Find the area of quadrilateral $ABCD$ if $AC = 35$, $BF = 18$, and $DE = 10$.



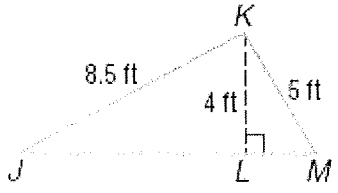
5. Find the area.



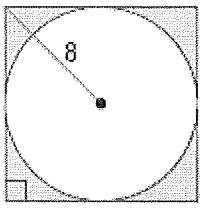
6 . **COORDINATE GEOMETRY** Find the area of trapezoid $ABCD$ with vertices $A(-3, 1)$, $B(5, 5)$, $C(5, 0)$, and $D(1, -2)$.



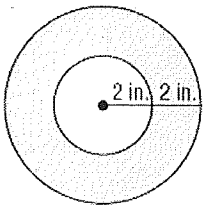
7 . Find the area of $\triangle JKM$.



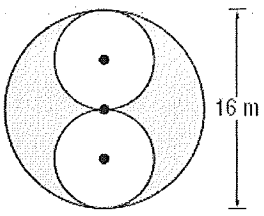
8. Find the shaded area.



9.



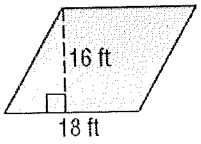
10



Individual Practice-Intro to Area

Find the area of each parallelogram.

1.



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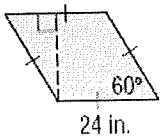
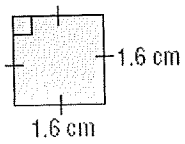
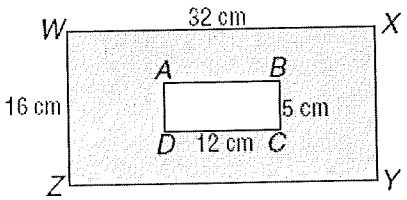


3.

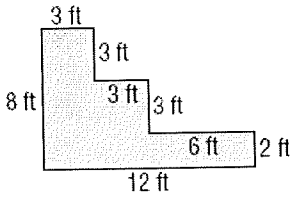


Find the area of each shaded region.

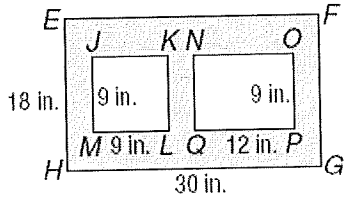
4. $WXYZ$ and $ABCD$ are rectangles.



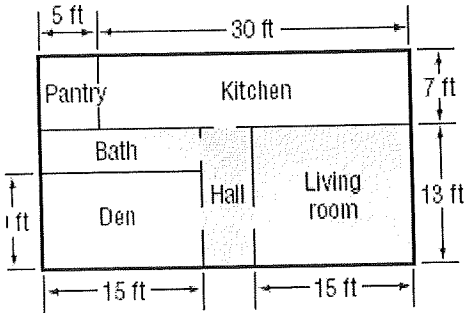
5. All angles are right angles.



6. $EFGH$ and $NOPQ$ are rectangles; $JKLM$ is a square.



7. The Smiths are planning to carpet part of their house. The carpet they plan to buy is sold by the square foot. If the carpet costs $4 per square foot. Find the cost of the carpeting if they want to carpet the living room, den, and hall. They want to tile the bathroom and kitchen floor. The tile is 1ft x 1ft and costs $6.75 per tile. What is the cost to tile that area?

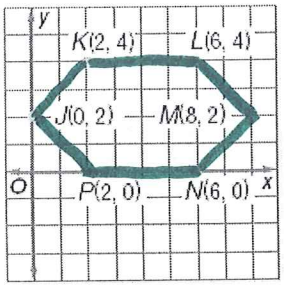


Find the area of each figure (round to the nearest tenth).

8. $A(-1, 2), B(3, 2), C(3, -2)$, and $D(-1, -2)$

9. $R(-1, 2), S(5, 0), T(4, -3)$, and $U(-2, -1)$

10.



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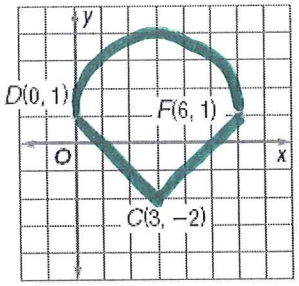

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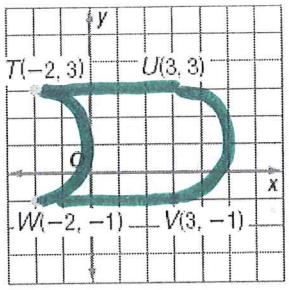
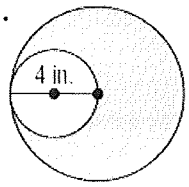


Name: _____ Date: _____

Find ACC Geometry: Homework Intro to Area

the area of the shaded regions.

1.



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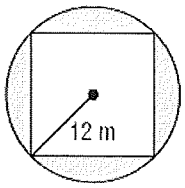

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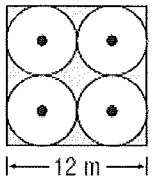

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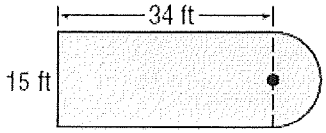
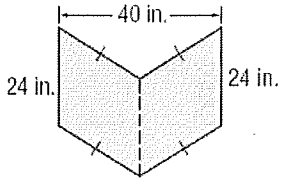


5.



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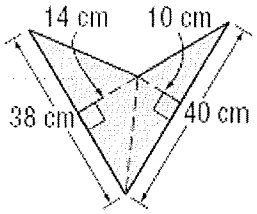
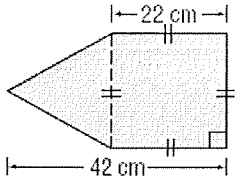


7.



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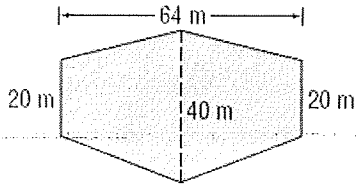

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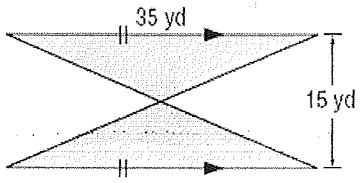
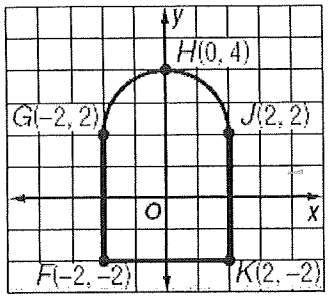


Areas of Composite Figures

Find the area of each figure. Round to the nearest tenth.

1.



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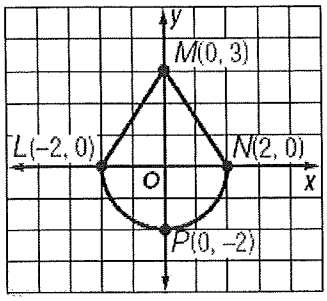

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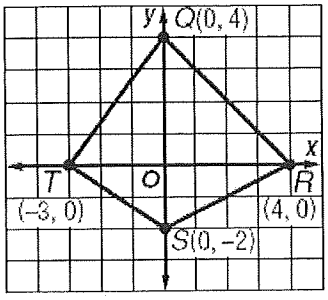
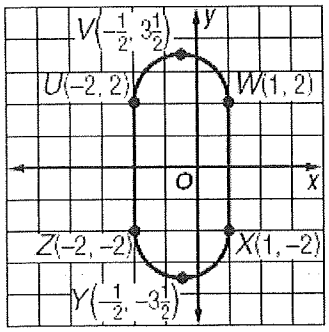
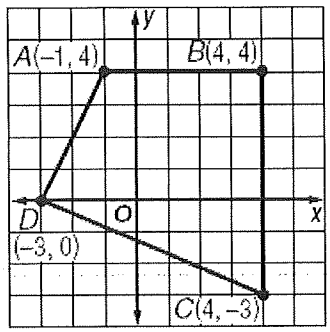




5.



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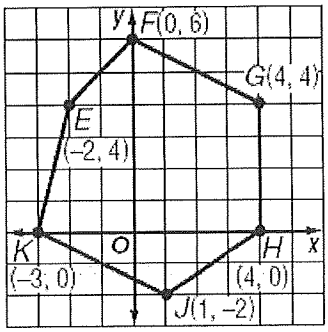
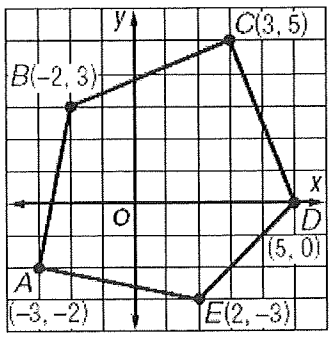


7. pentagon $ABCDE$



8. pentagon $RSTUV$