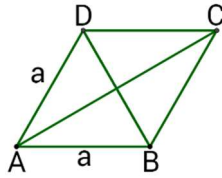
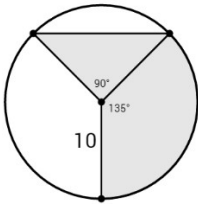


Worksheet #1

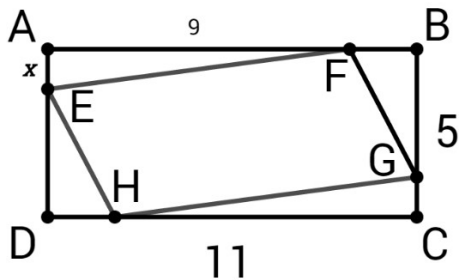
1. Below is a rhombus with sides $a = 7$. Its short diagonal satisfies $BD = a = 7$. What is the square value of the long diagonal, (i.e. the value of AC^2)?



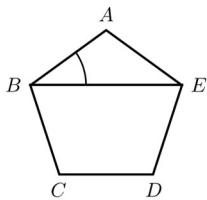
2. The shaded section of the circle of radius 10 consists of a right triangle and a sector of 135° . Find the area of the shaded section. Use $\pi = 3.14$, and round your answer to the nearest whole number.



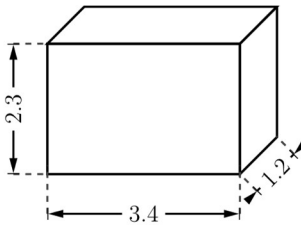
3. $ABCD$ is a rectangle with sides 11 and 5. $EFGH$ is a parallelogram. $AE = x$, $AF = 9$. The area of $EFGH$ is $\frac{2}{3}$ of the area of $ABCD$. What is the area of $\triangle DEH$? Express the answer as a fraction in lowest terms.



4. $ABCDE$ is a regular pentagon. What is the value of $\angle ABE$ in degrees ($^\circ$)?



5. What is the total area of the 6 faces of a box with sides 1.2, 2.3, and 3.4? Round the answer to the nearest whole number.



6. What is the value, in degrees, ($^\circ$), of the acute angle between the hour hand and the minute hand of a clock at the time of 3:32 PM?

