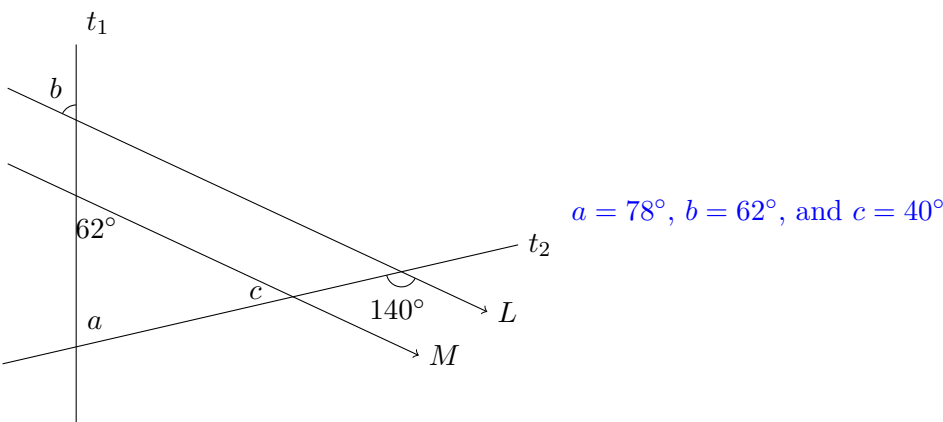


Quiz Three
Show all your work

Name: _____
Number: _____
Signature: _____
Score: ____/10

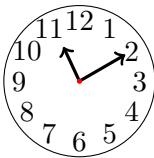
Problem 1: Lines L and M are parallel with transversals t_1 and t_2 . Given two angles 62° and 140° as shown in the diagram, find the angles $\angle a$, $\angle b$, and $\angle c$.



$a = 78^\circ$, $b = 62^\circ$, and $c = 40^\circ$

Score: ____/3

Problem 2: Find the smaller angle formed by the hour hand and the minute hand at ten past eleven o'clock on a twelve-hour analogue clock. Show your work.

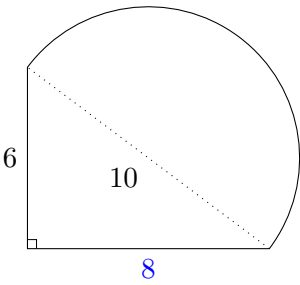


Since 360° is one full round of the circle, each hour covers $360^\circ/12 = 30^\circ$. So the smaller angle is $2 \times 30^\circ + 25^\circ = 85^\circ$.

Score: ____/2

Problem 3: Find the perimeter (not the dashed line) of the combined shape of a right triangle with a semicircle drawn on the triangle's hypotenuse of length 10. If necessary, round to nearest thousandths.

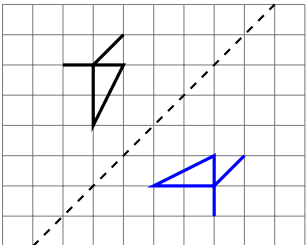
29.708 u



If the last side of the triangle has length x , the Pythagorean Theorem gives that $x^2 + 6^2 = 10^2$, so $x^2 = 10^2 - 6^2 = 64 = 8^2$, so $x = 8$.
The semicircle has radius 5, so length $\frac{1}{2} \times 2\pi 5 = 5\pi$.
The perimeter is thus $8 + 6 + 5\pi = 14 + 5\pi \approx 29.708$.

Score: ____/3

Problem 4: Reflect the given figure along the dashed line.



Score: ____/2