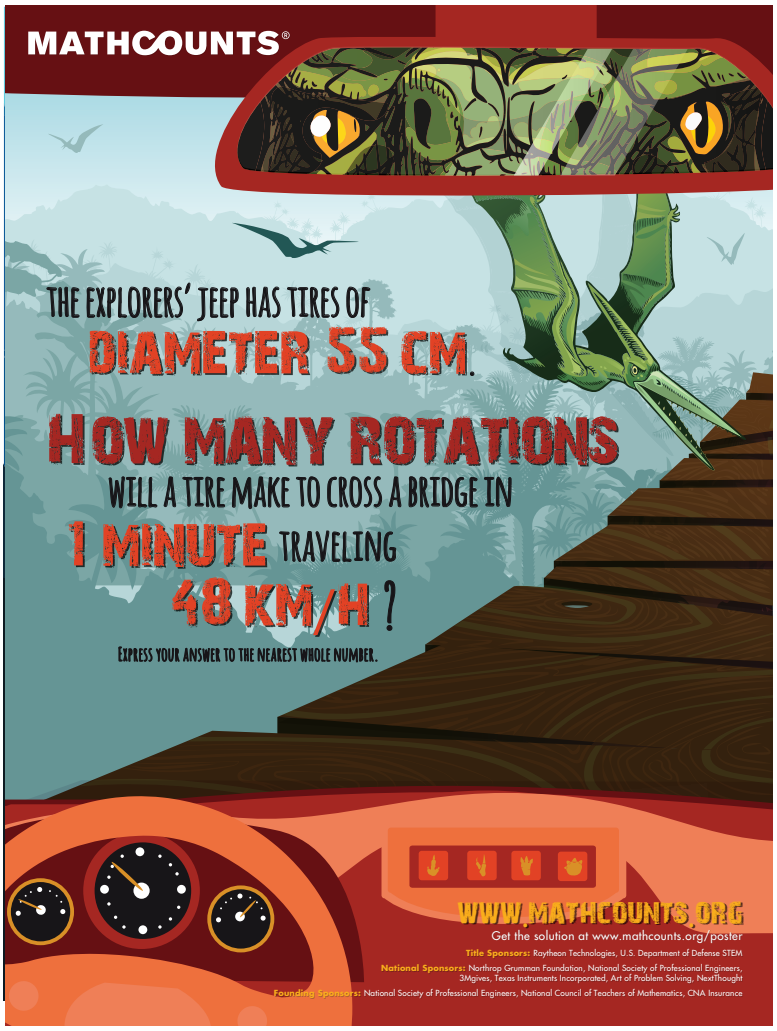
MATHCOUNTS 2020–2021 Handbook Poster Solution



The jeep's speed is 48 km/h, which means that, in 1 minute, it will travel $48 \div 60 = 0.8$ km, or $0.8 \times 10^5 = 80{,}000$ cm. Each tire has a diameter of 55 cm and a circumference of 55π cm. So, for every 55π cm the jeep travels, each tire makes 1 rotation. Therefore, to travel a distance of 80,000 cm, each tire will make $80{,}000 \div 55\pi \approx \mathbf{463}$ rotations.