The three pairs of common tangents to three circles appear to meet on a straight line. This is always the case. Can you prove it?

The top graduate of her class had a choice of two job offers, both at £25,000 a year. Unable to make up her mind between two offers, she wrote to the two companies asking what his chances were for raises over the next five years.

Company 1’s answer was a guaranteed raise of £500 every six months for the first five years. Company 2’s answer was a guaranteed raise of £2000 every twelve months for the first five years. To the astonishment of her parent’s she accepted Company 1’s offer. Was her choice the right one?

On both halves of the diameter of the large circle, three identical smaller circles are inscribed as shown. What is the ratio of R to D?

Using each of the numbers 8, 8, 3, 3 exactly once, together with +, -, ×, ÷ and any number of brackets write down an expression which equals 24.

Can you make a polygon with an area of 5 square units using 14 matches? (Each match has unit length.)