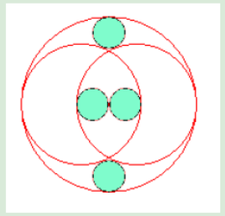
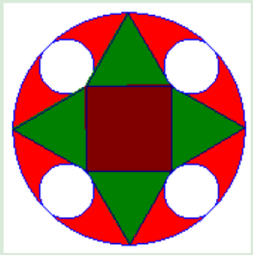
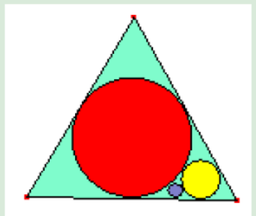
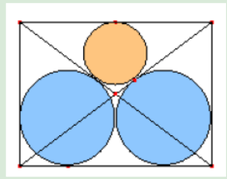
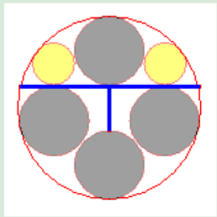
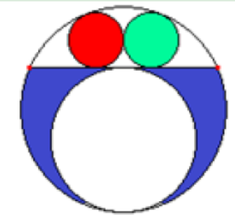
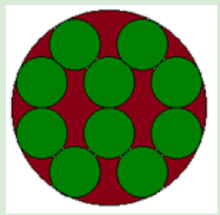
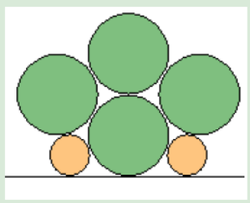
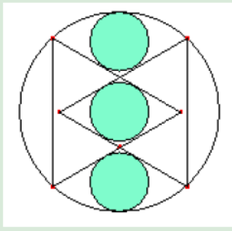
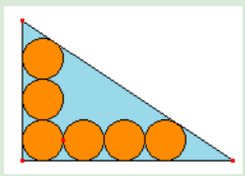
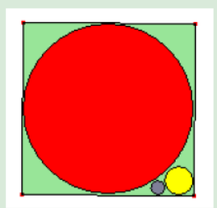
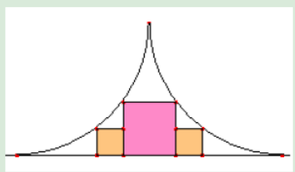
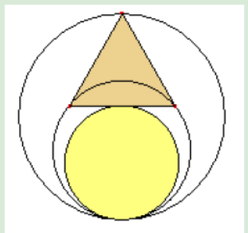
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	U
JANUARY	**2** 	**3** Two equal median circles and four small circles have been drawn on an exterior circumference of radius R. Calculate the radius of the circles. *Ishikawa Chiefdom*	**4** 	**5** A circle of radius R contains four equal circles and two other equal circles. Calculate the radius of all the circles. *Fukushima Headquarters*	**6** Φ, φ DAY 	**7** Given an equilateral triangle, a circle of radius r has been inscribed. Another circle is tangent outside the inscription and on two sides of the triangle. A third circle is tangent to one side and tangent outside to the previous two circles. Calculate the radius of the circumferences. *Saitama Headquarters*	**1/8**
	9 Two circles of equal radius r are tangent and each of them is tangent to two sides of a rectangle and to a diagonal. Calculate the measure of the sides of the rectangle and the radius of the outer tangent circumference to the previous ones and tangent to the rectangle. *Fukushima Headquarters*	**10** 	**11** Inside a circumference of radius R, a square has been drawn, 4 equilateral triangles on the sides of the square and 4 circumferences tangent to the exterior circumference and tangent to the sides of the triangle. Calculate the radius of these 4 circles. *Okayama Headquarters.*	**12** 	**13** In the figure there are two small circles of radius r and one large circle of radius s inside a circle. Calculate the diameter of the outer circumference. *Nagasaki Headquarters*	**14** 	**15**
	16 	**17** The figure has six circles tangent three to three. There are four big ones and two small ones. The two small ones and one large one are tangent to a line. Calculate the ratio between the radii of the two types of circles. *Nagano chief.*	**18** 	**19** Two equal equilateral triangles with parallel sides have been drawn in a circle of radius R. At the intersection of the two triangles and on the outside of the two triangles, three circles of equal radius have been drawn. Calculate the radius of the three circles. *Ishikawa Chiefdom*	**20** 	**21** Given a straight line and two equal arcs of radius r tangent to each other and tangent to the straight line, three squares have been drawn. Find the length of the sides of the squares. *Fukushima Headquarters*	**22**
	23 Ten equal circles have been inscribed in a circle. Determine the ratio between the radius of a small and the radius of the outer circumference. *Shisouka Headquarters*	**24** 	**25** Six equal and tangent circles of radius r have been inscribed in a right triangle. Calculate the proportion of the legs. Calculate the measurement of the legs. *Fukushima Headquarters*	**26** 	**27** Given a square, a circle of radius r has been inscribed. Another circle is tangent outside the inscription and on two sides of the square. A third circle is tangent to one side and tangent outside to the two previous circles. Calculate the radius of the circles. *Saitama Headquarters*	**28** 	**29**
	30 	**31** Two inner tangent circles at the same tangent point have been inscribed in a circle of radius R. The radius of the small circumference is r. An equilateral triangle is tangent to the small circumference and has two vertices in the middle circumference and the other in the outer circumference. Calculate the radius of the median circumference. *Nagasaki Headquarters*	VISUAL PYTHAGORAS