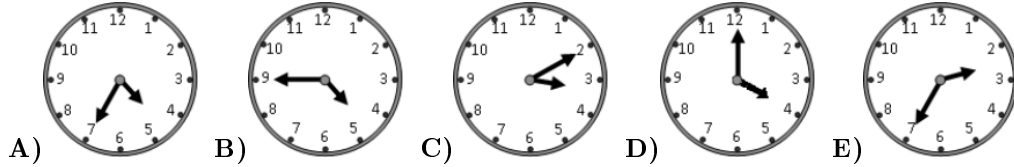
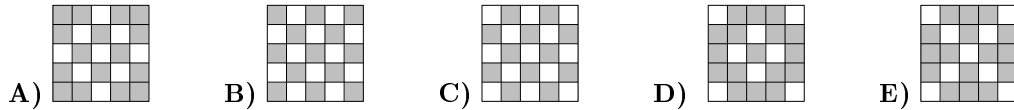
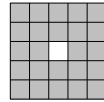


19. George starts tennis training at 17:05. The journey from his house to the bus stop takes 5 minutes. The bus runs every 10 minutes from six in the morning. The bus journey takes 15 minutes. It takes him 5 minutes to go from the bus stop to the court and 5 minutes to change clothes in the locker room. At what time at the latest does he have to leave his house to arrive at the field exactly on time?



20. On an electronic board the central square is lightened. After one minute lightened the squares having a common side with the central square, but this last one was switched out. After every next minute lightened the squares having common sides with squares being lightened the previous minute, but the last ones were switched out. How looked like the board after 4 minutes and 30 seconds?



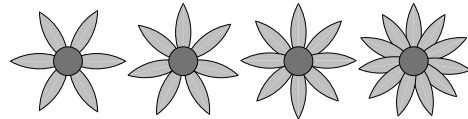
21. Four brothers have eaten 11 cookies in total. Each of them has eaten at least one cookie and no two of them have eaten the same number of cookies. Three of them have eaten 9 cookies in total and one of them has eaten exactly 3 cookies. How many cookies have been eaten by the boy who has eaten the largest number of cookies?

A) 3 B) 4 C) 5 D) 6 E) 7

22. Ten bags each contain a different number of candies from 1 to 10. Five boys each took two bags of candies. Alex got 5 candies, Bob got 7 candies, Charles got 9, and Dennis got 15. How many candies did Eric get?

A) 9 B) 11 C) 13 D) 17 E) 19

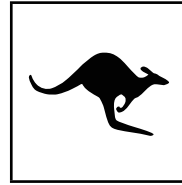
23. Kate has 4 flowers, one with 6 petals, one with 7 petals, one with 8 petals and one with 11 petals. Kate tears off one petal from three flowers. She does this several times, choosing any three flowers each time. She stops when she can no longer tear one petal from three flowers. What is the smallest number of petals which can remain?



A) 1 B) 2 C) 3 D) 4 E) 5

24. Kelly, Richard and Jacelyn are old classmates. During a recent gathering, they told each other about their occupation. Among them, there is a police, a clerk and an engineer. Below are the hints about their occupations: Kelly is older than police. Richard's age is not the same as the clerk. The clerk is younger than Jacelyn. What of the following statements is true?

A) Jacelyn is a police B) Richard is an engineer C) Kelly is not a clerk
D) Jacelyn is an engineer E) Richard is not a police



KANGAROO 2017

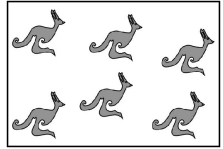


Time allowed: 75 minutes
Calculators are not permitted

Minor
3–4 grades

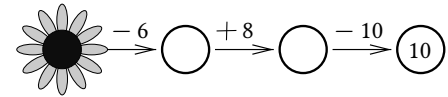
Questions for 3 points

1. John looks through the window. He sees half of the kangaroos in the park (see picture). How many kangaroos are there in the park?



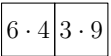
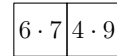
A) 12 B) 14 C) 16 D) 18 E) 20

2. What number is hidden under the flower?



A) 12 B) 18 C) 20 D) 24 E) 28

3. Which of the pieces A–E will fit between the two pieces on the right so that the squares of them touching each other had equal results of multiplication?



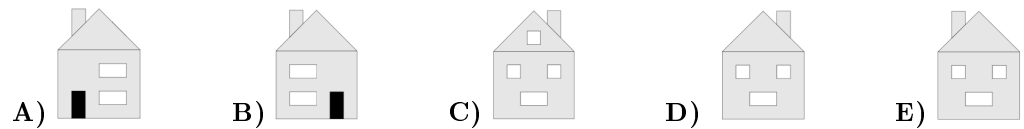
A) $\begin{array}{|c|c|} \hline 3 & 6 \\ \hline 2 & 4 \\ \hline \end{array}$ B) $\begin{array}{|c|c|} \hline 3 & 6 \\ \hline 8 & 3 \\ \hline \end{array}$ C) $\begin{array}{|c|c|} \hline 6 & 6 \\ \hline 2 & 4 \\ \hline \end{array}$ D) $\begin{array}{|c|c|} \hline 6 & 6 \\ \hline 8 & 3 \\ \hline \end{array}$ E) $\begin{array}{|c|c|} \hline 6 & 3 \\ \hline 4 & 8 \\ \hline \end{array}$

4. Dolly accidentally broke the mirror into pieces. How many pieces have exactly three sides?



A) 2 B) 3 C) 4 D) 5 E) 6

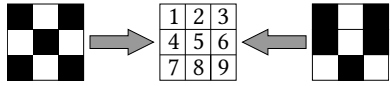
5. The picture shows the front of the house of Ann. The rear of her house has three windows and no door. What view does Ann see when she looks at the rear of her house?



6. Balloons are sold in packets of 5, 10 and 25. Marius buys exactly 70 balloons. What is the smallest number of packets he could buy?

A) 3 B) 4 C) 5 D) 6 E) 7

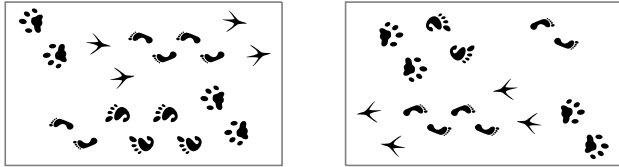
7. Two gridded transparent sheets are darkened in some squares, as shown.



They are both slid on top of the table shown in the middle. Then the numbers behind the darkened squares cannot be seen. Only one of the numbers can still be seen, which one is it?

- A) 2 B) 3 C) 5 D) 7 E) 9

8. A picture of footprints was turned upside down.

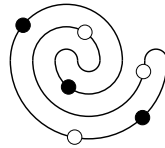


Which footprints are missing?

- A) B) C) D) E)

Questions for 4 points

9. In the figure on the right we see a necklace of six beads. Which one is the same necklace?



- A) B) C) D) E)

10. Which one is true?

$$\bullet + \bullet + \bullet + \bullet + \blacksquare = \blacksquare + \blacksquare + \blacksquare$$

- A) $\bullet = \blacksquare$ B) $\bullet + \bullet + \bullet = \blacksquare$ C) $\blacksquare + \blacksquare + \blacksquare = \bullet$ D) $\blacksquare + \blacksquare = \bullet$
E) $\bullet + \bullet = \blacksquare$

11. Bob folded a piece of paper. He cut exactly one hole in the paper. Then he unfolded the piece of paper and saw the result as shown in the picture. How had Bob folded his piece of paper?

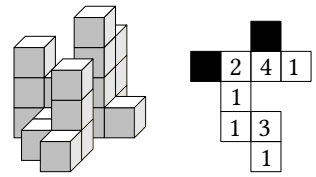


- A) B) C) D) E)

12. There is a tournament at the pool. First 13 children signed up and then another 19 signed up. Six teams with an equal number of members are needed for the tournament. At least how many more children need to sign up so that the six teams can be formed?

- A) 10 B) 2 C) 3 D) 4 E) 5

13. The picture shows a group of building blocks and a plan of the same group. Some ink has dripped onto the plan. What is the sum of the numbers under the ink blots?



- A) 3 B) 4 C) 5 D) 6 E) 7

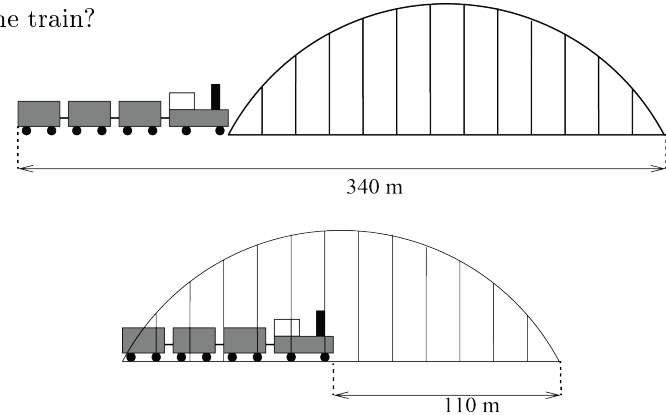
14. In a game 5 children are throwing two darts at the same target board. Each throw hit the target board but no two darts hit the same value area. You can get points between 1 and 10 for each throw that hits the board. At the end of the game the children had the following total number of points: Amy had 11 points, Bea had 4, Camilla had 7, Doris had 16, and Emma had 17 points. Who got with two throws points whose difference was the biggest?

- A) Amy B) Bea C) Camilla D) Doris E) Emma

15. David wants to cook 5 dishes on a stove with only 2 burners. The times needed to cook the 5 dishes are 40 min, 15 min, 35 min, 10 min and 45 min. What is the shortest time in which he can do it? (He may only remove a dish from the stove when it is cooked.)

- A) 60 min B) 70 min C) 75 min D) 80 min E) 85 min

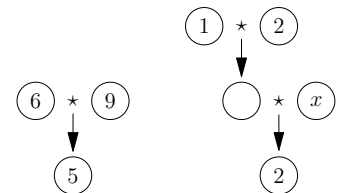
16. How long is the train?



- A) 55 m B) 115 m C) 170 m D) 220 m E) 230 m

Questions for 5 points

17. The operation \star adds two numbers and divides this sum by 3. For example, $6 \star 9 = (6 + 9) : 3 = 5$ (see the left diagram). To which number is equal x in the right diagram?



- A) 1 B) 2 C) 3 D) 4 E) 5

18. Zosia has hidden a smiley ☺ in some of the cells of the table. In some of the other cells she writes the number of smileys in the neighbouring cells as shown in the picture. Two cells are said to be neighbouring if they share a common side or a common corner. How many smileys has she hidden?

	3	3	
2			
		2	
	1		

- A) 4 B) 5 C) 7 D) 8 E) 11