

Math Kangaroo Contest 2015 - Pre-Ecolier



3 point problems

1. Which figure is not in each of four pictures? 哪个图形没有同时出现在以下四张图中?



2. How many triangles are there in the picture? 下图中一共有多少个三角形



3. Find the missing part of the house. 找到房子中缺失的部分。









4. Five lady-bugs live on a bush. In total, how many spots have the lady-bugs? 下图瓢虫中有多少个点点?



5. Eric had 10 equal metal strips. 小E有10个一模一样的金属条。

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	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
,	Jol	Jol	Jol	Jol	Jol	Jol	Jol	Jol	Jol	Jol
(\circ)	(\circ)	(\circ)	(\circ)	(\circ)	(\circ)	(\circ)	(\circ)	(\circ)	(\circ)
`	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc

He has screwed pairs of them together into five long strips. 每两个组合起来形成5个长的金属条



Which strip is the shortest? 哪个金属条是最短的?

	<i>i</i>	(-)	<i>i</i>	<i></i> ,
$(\mathbf{A}) \mathbf{A}$	(B) B	(C) C	(D) D	(E) E
()	(-) -	(-) -	(-) -	(-/ -



7. What does the round tower look like from above? 哪个图形是下面图形的俯视图?



8. What is the sum of the numbers outside the square? 方形外面的数字之和是多少?





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4 point problems

(**A**)

- 9. It takes half an hour for Jenny to go half of the way from school to home. How long does it take Jenny to go to school from home? 小J用半个小时的时间走了从学校到家一半的路程。请问小J 从学校到家全程需要多久?
 - (A) 15 minutes 15分钟 (D) 2 hours 2个小时

(**B**)

(B) half an hour 半个小时 (C) 1 hour 1个小时 (E) 40 minutes 40分钟

 (\mathbf{D})

10. Don made two bricks by sticking two cubes together. Which construction cannot be built of these two bricks?





11. Marko has 9 sweets and Tomo has 17 sweets. How many sweets does Tomo need to give to Marko so that each boy has the same number of sweets? 小M有9块糖果,小T有17块糖果。小T需要给小M多少糖果才能使得两人的糖果一样多?
(A) 2
(B) 3
(C) 4
(D) 5
(E) 6

 (\mathbf{C})

12. Six towers are built with grey cubes and white cubes. Each tower is made with five cubes. Cubes of the same colors do not touch. How many white cubes are there?





(**A**) 1



13. Which piece is missing? 下列图中缺失的是哪个图形?



- **14.** The date 5/5/2015 has three 5's. The earliest date that will have three 5's again is: 5/5/2015中有3个5。请问之后又会出现3个5的最早的日期是?
 - (A) 5/5/2025(B) 15/6/2055(C) 15/5/2050(D) 25/5/2015(E) 15/5/2015
- 15. Mother ordered 2 pizzas and sliced each of them into 8 pieces for Vera's birthday. There were 14 children at the party including Vera. How many slices are left over if mother gives one slice to each child? 妈妈为小V的生日宴会订了两张披萨并且将每张披萨都分成了8块。小V的生日宴会上有14个小小朋友(包括小V)。请问如果妈妈给每位小朋友一块披萨,那么还剩几块披萨?
 (A) 5
 (B) 4
 (C) 3
 (D) 2
 (E) 1
- **16.** Place each of the numbers 1, 2, 3, 4, 5 into one box so that everything is correct. Which number goes into the box marked with question mark?

将数字1,2,3,4,5填入下列的方框中使得式子成立。请问问号的方框中要填入什么数字?



(**E**) 5





5 point problems

- **17.** There were 11 flags on a straight track of a race. The first one was at the start, the last one at the finish. The distance between each flag was 8 m. How long was the track?有11个旗子在 直线跑道上。第一个旗子在起点,最后一个旗子在重点,如果每个旗子之间的距离为8 m,那么请问这条直线跑 道有多长?
 - (A) 24 metres (B) 48 metres (C) 72 metres (D) 80 metres (E) 88 metres
- **18.** The Kangaroo jumps from circle *S* along the line to the next circle in one jump. It is not allowed to jump into any circle more than once. In how many different ways, by



一只袋鼠从圆S沿着线跳到下一个圆 , 一次只能跳一个圆 , 每个圆不能跳超过 一次。请问 , 只跳四次 , 袋鼠有多少种 不同的方式到达圆F ?

taking only 4 jumps, can the Kangaroo reach circle F?

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

19. A ship was attacked by pirates. One by one they were climbing a rope to get to the ship. The pirate captain was in the middle and he was also the eighth one from the beginning. How many pirates were on the rope? -条船被海盗袭击了。海盗从绳子上一个一个爬上船。海盗船长在中间,也是绳子上的第8个人,请问有多少个海盗在绳子上?
(A) 7
(B) 8
(C) 12
(D) 15
(E) 16

20. During 3 days Joy the cat was catching mice. Each day, Joy caught 2 mice more than the previous day. On the third day, Joy caught twice as many mice as on the first day. In total, how many mice did Joy catch during the three days?







- 21. Rick and Tom were building an igloo. Each hour Rick made 8 snow bricks and Tom made two bricks less. How many bricks did they make together in three hours?小R和小T正在盖一座 房子。小R每小时制造8块砖,小T比小R少2块砖。问他们在三个小时内一起制作了多少块砖?
 - **(A)** 14 (**C**) 42 **(B)** 30 (**D**) 48 (**E**) 54
- **22.** Nick built a cube using gray and white cubes (see fig.). The cubes with the same color do not have a common face. Which statement describes the number of used cubes?

小N使用灰色和白色小立方体搭建了一个 大立方体(如图)。每个颜色交错排列。 请回下列那个选项正确描述了小立方体的 数量?



- (A) one gray cube more than white cubes 灰色小立方体比白色小立方体多一个
- (**B**) one white cube more than gray cubes 白色小立方体比灰色小立方体多一个
- (C) the same number of gray and white cubes 灰色和白色小立方体数量相同

(D) two white cubes more than gray cubes

白色小立方体比灰色小立方体多两个

- (E) two gray cubes more than white cubes 灰色小立方体比白色小立方体多两个
- **23.** We left for a summer camp yesterday at 4:32 PM and got to our destination today at 6:11 AM. For how long did we travel?我们昨天下午4:32从夏令营返回家,今天上午6:11 到达,请问我们行走了多长时间?
 - (A) 13 hours 39 minutes13小时39分钟
- (B) 14 hours 39 minutes 14小时39分钟
- (C) 14 hours 21 minutes14小时21分钟
- (E) 2 hours 21 minutes 2小时21分钟
- (D) 13 hours 21 minutes 13小时21分钟
- 24. The numbers 3, 5, 7, 8 and 9 are written into the squares (see fig.) so that the sum of the numbers in the row is equal to the sum of the numbers in the column. Which number is written in the central square? 如图所示,将数字3、5、7、8和9这五个数字写入下列方格中,以使每行数 字总和等于每列数字总和,那么,中心方格应该写入哪个数字?



答案:DCBCBEBECBCCAEDEDDDCCAAD