2026 MAA AMC 8

Problem 1

What is the value of the below expression?

问以下表达式的值是多少?

$$202 \times 6 - 20 \times 26 + 123$$

(A) 569 **(B)** 735 **(C)** 815 **(D)** 835 **(E)** 915

Problem 2

What is the sum of the 24 numbers in the below grid?

问下表中的 24 个数之和是多少?

2	1	4	3	2	1
3	4	3	2	1	4
4	1	2	3	4	3
1	2	3	4	1	2

(A) 60 **(B)** 62 **(C)** 64 **(D)** 66 **(E)** 68

Problem 3

The lengths of two sides of a triangle are 20 and 26 respectively, and its perimeter is an integer. What is the maximum possible value of the perimeter of this triangle?

一个三角形的两条边长分别为 20 和 26，周长是整数．问这个三角形的周长最大是多少?

(A) 72 **(B)** 81 **(C)** 82 **(D)** 91 **(E)** 92

Problem 4

At the beginning of 2025, Aaron and Byron each invested $10, 000 in the stock market. By the end of the year, Aaron's investment suffered a 10% loss while Byron's investment gained a 20% profit. What percentage of Byron's investment did Aaron have at the end of 2025?

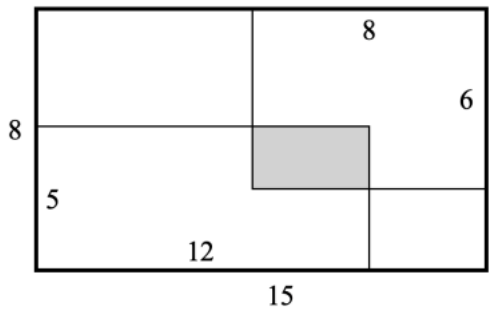
2025 年初，Aaron 与 Byron 各持有 10,000 美元资金投入股市．年末时，Aaron 的投资亏损 10%，Byron 的投资盈利 20%．问在 2025 年末，Aaron 的投资金额是 Byron 的百分之多少?

（A）70 **（B）**75 **（C）**80 **（D）**90 **（E）**110

Problem 5

As shown in the figure, a 12 × 5 rectangle and an 8 × 6 rectangle are placed inside a 15 × 8 rectangle, aligned with the bottom-left and top-right corners respectively. What is the area of the shaded region where the two rectangles overlap?

如图所示，在 15 × 8 的矩形内部，左下角和右上角分别放置了一个 12 × 5 的矩形和一个 8 × 6 的矩形．问这两个矩形重叠部分（阴影区域）的面积是多少?



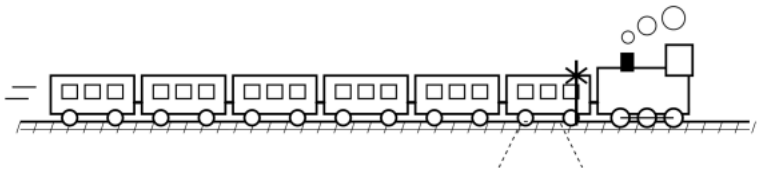
（A）10 **（B）**12 **（C）**15 **（D）**18 **（E）**20

Problem 6

A freight train passes through a level crossing at a speed of 5 meters per second, taking 2 minutes and 40 seconds. Given that the length of each carriage (including the locomotive) is 12.5 meters, how many carriages does this freight train have in total?

一列货车以每秒 5 米的速度通过某交叉道口，耗时 2 分 40 秒．已知包含货车头

在内，每节车厢的长度均为 12.5 米，问这列货车共有多少节车厢?



（A）64　**（B）**68　**（C）**72　**（D）**80　**（E）**96

Problem 7

Lily is conducting a range test on her new electric vehicle (EV). When she started her journey, the dashboard showed a full battery at 100%. After the first leg of the trip, the battery level dropped to 55%. By the time she completed the second leg and reached her destination, the battery level had further decreased to 30%. Given that the two legs of the trip totaled 210 kilometers, what is the estimated total driving distance, in kilometers, of the EV on a full charge, assuming constant energy efficiency?

Lily 驾驶她的新款纯电动汽车进行续航测试．出发时，仪表盘显示电池电量为 100%．经过第一段高速行驶后，电量降至 55%；在完成第二段行程到达目的地时，电量进一步降至 30%．已知这两段行程的总行驶里程合计为 210 千米．假设车辆的能耗效率保持恒定，问该车在满电状态下的理论最大续航里程是多少千米?

（A）280　**（B）**300　**（C）**350　**（D）**420　**（E）**700

Problem 8

In the AI Club at Silicon Valley Middle School, $\frac{11}{12}$ of the members have used OpenAI, and $\frac{4}{9}$ of the members have used DeepSeek. The entire club recently took a field trip to Google in a shuttle bus with a maximum capacity of 66 passengers. How many students are in the AI Club?

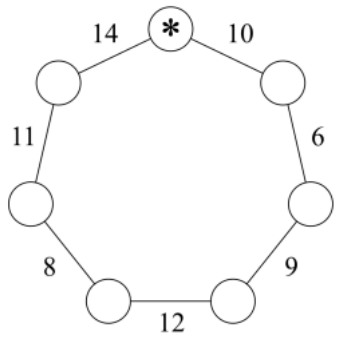
在硅谷中学的人工智能社团中，有 $\frac{11}{12}$ 的成员使用过 OpenAI，有 $\frac{4}{9}$ 的成员使用过 Deepseek．最近，该社团全体成员曾乘坐一辆限乘 66 人的大客车前往 Google 参观．问该人工智能社团共有多少名学生?

（A）36　**（B）**44　**（C）**48　**（D）**60　**（E）**72

Problem 9

Fill in the 7 circles in the figure below with integers from 2 to 8 respectively, such that the sum of the numbers in every two adjacent circles is equal to the number marked on the connecting line between them. What number should be placed in the circle marked with $*$?

在下图的 7 个圆圈内分别填入从 2 到 8 的整数，使得每两个相邻圆圈内所填数的和都等于连线上已给的数，问标有 $*$ 的那个圆圈中应填几?



(A) 4 **(B)** 5 **(C)** 6 **(D)** 7 **(E)** 8

Problem 10

There exists a unique positive integer N such that the largest divisor of N excluding N itself is 2026. What is the sum of the digits of N?

已知存在唯一的正整数 N，它除去自身以外的最大因数是 2026．问 N 的各位数字之和是多少?

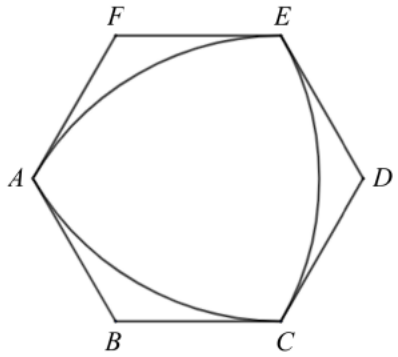
(A) 8 **(B)** 10 **(C)** 11 **(D)** 13 **(E)** 15

Problem 11

As shown in the figure, let $ABCDEF$ be a regular hexagon of side length 1. Arcs $\widehat{CE}$, $\widehat{EA}$, and $\widehat{AC}$ are drawn centered at vertices A, C, and E respectively, forming a curved triangle ACE. What is the perimeter of this curved triangle?

如图所示，在边长为 1 的正六边形 $ABCDEF$ 中，分别以 A，C，E 为圆心，

做圆弧$\widehat{CE}$，$\widehat{EA}$，$\widehat{AC}$，形成曲边三角形ACE．问这个曲边三角形的周长是多少?



(A) $\frac{\sqrt{3}}{2}\pi$ **(B)** π **(C)** $3\sqrt{3}$ **(D)** $\sqrt{3}\pi$ **(E)** 3π

Problem 12

An empty reservoir takes 18 minutes to be filled by Pipe A alone, and 24 minutes by Pipe B alone. Clearly, the water injection speed of Pipe A is faster than that of Pipe B, and the extra volume of water injected by Pipe A per minute can exactly fill 9 identical small buckets. How many such small buckets is the total capacity of this reservoir equivalent to?

一个空蓄水池，用甲水管单独注满水池需要 18 分钟；用乙水管单独注满水池需要 24 分钟．显然甲水管的注水速度比乙水管快，而甲水管每分钟多注入的水量恰好能装满 9 个相同的小水桶. 问这个蓄水池的总容积相当于多少个这样的小水桶?

(A) 72 **(B)** 324 **(C)** 576 **(D)** 648 **(E)** 720

Problem 13

A robot climbs a staircase with 10 steps. The robot can take a stride of either 2 steps or 3 steps at a time. However, the robot cannot take two 3-step strides in a row. In how many different ways can the robot reach the 10^{th} step exactly?

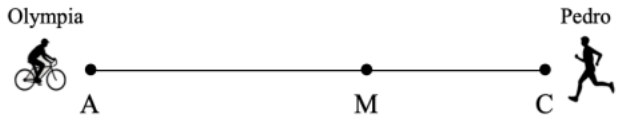
一个机器人爬一段共有 10 级台阶的楼梯. 机器人每次可以跨 2 级或 3 级台阶. 但是，机器人不能连续两次跨越 3 级台阶．问机器人恰好到达第 10 级台阶共有多少种不同的方式?

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

Problem 14

As shown in the figure, there is Town M on the road connecting Town A and Town C, and the distance from Town A to Town M is twice that from Town M to Town C. At 8:00 in the morning, Olympia starts cycling from Town A to Town M, while Pedro starts running from Town C to Town M. It is known that Olympia's speed is three times that of Pedro. The person who arrives at Town M first waits for 20 minutes before the other one arrives. At what time and minute does the first arrival reach Town M?

如图所示，A 镇与 C 镇之间的公路上有 M 镇，A 镇到 M 镇的距离是 M 镇到 C 镇的 2 倍．早晨 8:00，Olympia 从 A 镇骑车前往 M 镇，Pedro 从 C 镇跑步前往 M 镇．已知 Olympia 的速度是 Pedro 的 3 倍，两人中先到达 M 镇的人等待 20 分钟后，另一人才抵达．问先到者到达 M 镇的时间是几点几分?



(A) 8:10 **(B)** 8:20 **(C)** 8:30 **(D)** 8:40 **(E)** 9:00

Problem 15

Jami rolls two standard six-sided dice. What is the probability that the two digits rolled can be arranged to form a two-digit number divisible by 4?

Jami 掷两枚标准的六面骰子．问掷出的两个数字能组成一个能被 4 整除的两位数的概率是多少?

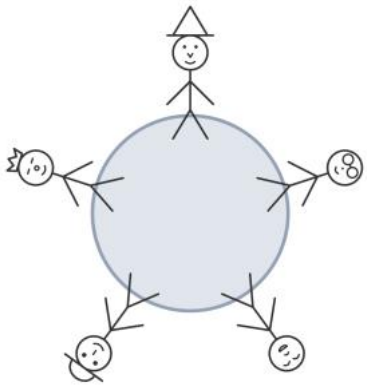
(A) $\frac{1}{4}$ **(B)** $\frac{1}{3}$ **(C)** $\frac{13}{36}$ **(D)** $\frac{5}{12}$ **(E)** $\frac{17}{36}$

Problem 16

During the Christmas party, five friends sat around a round table in the restaurant. At the New Year party, these five friends still dined at this round table, with the requirement that each friend's adjacent neighbors were different

from those at the Christmas party. How many possible seating arrangements satisfy this condition?

圣诞聚会时，五位朋友围坐在餐厅的一张圆桌旁用餐．新年聚会时，这五位朋友仍在这张圆桌聚餐，但要求每位朋友的邻座都与圣诞聚会时的邻座不同．问满足条件的入座排列方式共有多少种?



（A）5　**（B）**10　**（C）**15　**（D）**20　**（E）**30

Problem 17

Sherry wrote down three integers. She found that their average was 40 and their median was 30. Tina then replaced one of the integers with a different value. For this new set of integers, the average became 42 and the median became 32. What is the largest of the three original integers?

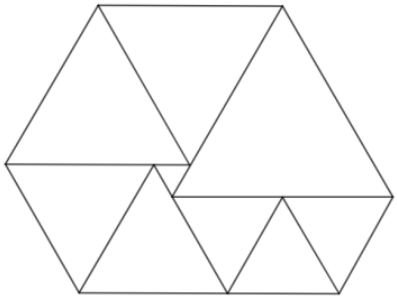
Sherry 写下了三个整数，其平均数为 40，中位数为 30．随后，Tina 将其中的一个数替换成了另一个数，使得这组新数的平均数变为 42，中位数变 32．问 Sherry 最初写下的三个数中，最大的那个数是多少?

（A）50　**（B）**52　**（C）**60　**（D）**62　**（E）**64

Problem 18

As shown in the figure below, a hexagon is formed by nine equilateral triangles of five different sizes. Given that the side length of the largest equilateral triangle among them is 24 centimeters, what is the perimeter of this hexagon in centimeters?

如下图所示，五种不同大小的正三角形共九个拼接成了一个六边形．已知其中最大的正三角形的边长是 24 厘米，问这个六边形的周长是多少厘米?

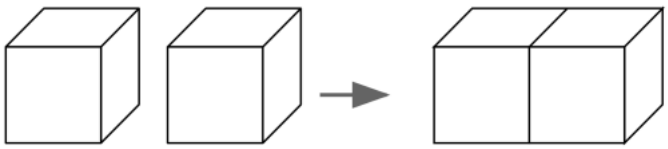


（A）112　**（B）**116　**（C）**120　**（D）**124　**（E）**128

Problem 19

Elijah has seven identical wooden unit cubes. He glues them together face-to-face to form a single three-dimensional shape (the figure below illustrates how two cubes are glued together). What is the smallest possible surface area of this new shape?

Elijah 有 7 个完全相同的木质单位立方体，他将这些立方体面贴面粘在一起，组成一个新的几何形体（下图展示了两个立方体之间的粘接方式）．问新的几何形体表面积的最小可能值是多少?



（A）24　**（B）**26　**（C）**28　**（D）**30　**（E）**32

Problem 20

There are 6 consecutive odd numbers, each of which is a multiple of 3, 5, 7,or 11. What is one possible remainder when the largest of these numbers is divided by 11?

有 6 个连续奇数，这 6 个数中的每一个数都是 3，5，7 或 11 的倍数．问其中最大的数除以 11 的余数可能是几?

(A) 0 **(B)** 1 **(C)** 2 **(D)** 3 **(E)** 4

Problem 21

Which of the following numbers is a possible value of n that makes the below statement true?

Randomly select an n-digit positive integer. The probability that this integer is divisible by n is $\frac{1}{n}$.

当下述命题成立时，问 n 的可能取值是下列选项中的哪一个?

「随机选取一个 n 位正整数，该整数能被 n 整除的概率为 $\frac{1}{n}$.」

(A) 95 **(B)** 96 **(C)** 97 **(D)** 98 **(E)** 99

Problem 22

In how many ways can 58 be written as the sum of three distinct two-digit numbers arranged in increasing order, such that each of these three numbers contains the digit 1?

将 58 写成按递增顺序排列的三个不同的两位数的和，要求其中的每个两位数都包含有数字 1，问有多少种不同的方式?

(A) 4 **(B)** 5 **(C)** 6 **(D)** 7 **(E)** 8

Problem 23

What is the value of the below expression?

以下表达式的值是多少?

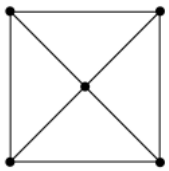
$$\sqrt{\sqrt{9}+\sqrt{16}+\sqrt{48}}-\sqrt{\sqrt{3}+\sqrt{49}-\sqrt{75}}$$

(A) 0 **(B)** 2 **(C)** $2\sqrt{3}$ **(D)** 4 **(E)** $4\sqrt{3}$

Problem 24

Charlotte the spider is walking along a web formed by the sides and diagonals of a square, as shown in the figure below. The web has 4 outer points and 1 center point. Each time Charlotte reaches a point, she randomly chooses a neighboring point and moves to that point. Charlotte starts at one of the outer points and makes 3 moves (re-visiting points is allowed). What is the probability she is now at the center point?

如下图所示，蜘蛛 Charlotte 沿着一个由正方形的边与对角线构成的网爬行．这个网有 4 个外围顶点和 1 个中心点．每当 Charlotte 到达一个点时，她会随机选择一个相邻的点并移动过去．Charlotte 从其中一个外围顶点开始，移动了 3 次（允许重复经过同一个点）．问她现在位于中心点的概率是多少？

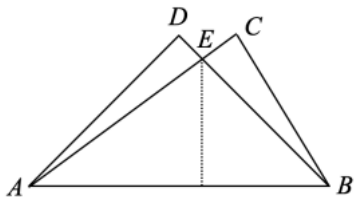


(A) $\frac{7}{27}$ **(B)** $\frac{11}{36}$ **(C)** $\frac{5}{18}$ **(D)** $\frac{1}{3}$ **(E)** $\frac{10}{27}$

Problem 25

As shown in the figure below, in $\triangle ABC$, $\angle C = 90°$, $AC = 4$ and $BC = 3$; in $\triangle ADB$, $\angle D = 90°$ and $AD = BD$. Line segments AC and BD intersect at point E. What is the distance from point E to the line AB?

如图所示，在 $\triangle ABC$ 中，$\angle C = 90°$，$AC = 4$，$BC = 3$；在 $\triangle ADB$ 中，$\angle D = 90°$，$AD = BD$．线段 AC 和 BD 相交于点 E．问点 E 到直线 AB 的距离是多少？



(A) $2\frac{1}{7}$ **(B)** $2\frac{1}{6}$ **(C)** $2\frac{1}{5}$ **(D)** $2\frac{1}{4}$ **(E)** $2\frac{1}{3}$

2026 AMC 8 Answer Key													
题目	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
答案	C	A	D	B	C	A	B	A	C	C	D	D	B
题目	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	
答案	D	E	B	E	C	A	E	B	B	C	A	A	

2026 AMC8 Solution



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