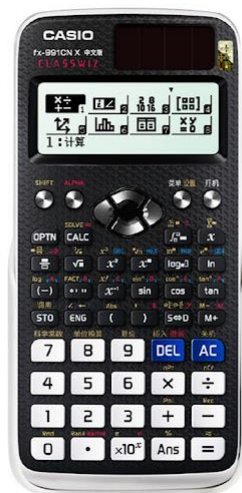


国际课程适应力评估旨在全面评估学生是否具备能够成功完成我校学业的能力。

所需文具及其他说明：

我校会提供评估所需文具及物品，包括中性笔、铅笔和橡皮。
数学评估全程可使用科学函数计算器，请学生自备。



苏州德威严禁作弊，如学生被发现携带未获许可带入评估现场的物品，或有任何形式的作弊，会被取消评估资格，并在该学年内不得参加任何我校评估。
参加评估当天，学生可能会被邀请到我校做进一步评估。

苏州德威 IGCSE 国际课程适应力评估信息

IGCSE课程评估由以下部分组成：

- A. 英语综合运用评估 – 60分钟
- B. 英文写作能力评估 – 30分钟
- C. 英语面试 – 6-10分钟
- D. 数学能力评估 – 60分钟

注：每场次评估具体安排，相关科目的评估时间可能不按以上列表顺序。
评估前一周，每位学生的申请邮箱都会收到招办发送的具体安排邮件。

英语综合运用评估（60分钟）

A 部分：英文知识运用（30分钟）

此部分将包括大约 30 个问题，主要评估学生对语法和词汇的掌握能力。此评估共有两个部分。第一部分是单项选择题，主要基于一份阅读节选，要求学生根据上下文线索，从四个选项上选出最合适的答案。第二部分是一个开放式的完形填空，要求学生在提供的文章中，根据上下文线索及对英语运用的综合掌握能力，填出空白部分。

B 部分：听力和阅读理解评估（30分钟）

此部分是单项选择题，此部分问题类型比较广泛，将包括大约 15 个问题，主要评估学生听取和理解短文的能力。学生将听两遍录音，然后从四个选项中，选择他们理解的最适合的答案。

英文写作能力评估 (30 分钟)

这项评估要求学生写一篇表达个人观点、阐述理由和原因或是针对现代社会中存在的问题所造成的影响进行阐述的文章。此项评估旨在观察学生能否根据主题表达个人观点并给出合理的阐述。文章规定为 150-200 字，学生应确保所写文章和要求的结构相符（即有开头、主体、结尾）。

英语面试 (6-10 分钟)

这项评估以 IGSCCE 英语（作为第二语言）为基础，考官将会与学生进行一场持续 6-10 分钟的讨论。通过面试，考官将能更好地了解学生以及他们是否适合学校，或沟通申请过程中的任何问题。

数学能力评估 (60 分钟)

数学能力评估为中英文双语对照, 包含 A、B、C 三部分, 共计 60 分钟

A 部分由 10 道基础数学题组成, 评估基本的数学原理和所需的关键词汇。考查知识点如下:

1. 解线性方程
2. 解一元二次方程
3. 与平行线相关的角
4. 面积和体积
5. 圆
6. 求平均值
7. 概率
8. 数的性质
9. 三角形
10. 数列和找规律

B 部分通过简答题来评估学生目前所学到的关键性的数学知识点, 以及全面评估学生对要求更高的知识点的掌握。共包含 10 道问题, 其中 5 道题将评估对于数学理论的理解力, 5 道更具挑战性的问题将评估运用数学思维来解决问题的能力。

C 部分为 1 道难度较大的解答题, 要求学生有出色的数学知识运用能力, 以及在高难度的问题中运用数学概念的能力。

数学能力评估中的 B 和 C 部分, 会考查更广泛的知识点, 考察知识点如下:

1. 线性方程
2. 二次方程与函数
3. 线性不等式
4. 平行线和圆的定理
5. 相似图形
6. 直角三角形(sin/cos/tan 和毕达哥拉斯定理)
7. 长度/面积/体积计算
8. 概率和统计

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Sample Paper 1

Mathematics Paper Sections A, B and C 数学 A、B、C 部分

60 minutes

36 marks

Instructions:

- A scientific function calculator may be used. 可使用科学函数计算器
- The test will be taken on a computer. 评估在电脑上作答
- Scratch paper is provided. 提供草稿纸
- No marks are taken away for incorrect answers. 答错不得分
- You do not need to include units for any of your answers. 答案中不需要写单位
- For Section A, each correct answer is awarded 1 mark. A 部分每个正确的答案得 1 分
- For Section B, each correct answer is awarded 2 marks. B 部分每个正确的答案得 2 分
- Section A is worth 10 marks. A 部分总分为 10 分
- Section B is worth 20 marks. B 部分总分为 20 分
- Section C is worth 6 marks. C 部分总分为 6 分
- You will need to fill in multiple boxes in Section C to gain marks
C 部分需要填在多个格子里填来得分

Do not begin until instructed to do so.
请等监考老师说开始时，方可翻阅试卷。

Section A

1.

Solve $5(2x - 3) + 2x = 6x - 1 - 2(3 - 2x)$

解方程 $5(2x - 3) + 2x = 6x - 1 - 2(3 - 2x)$

Answer

2.

Solve $x^2 - x - 42 = 0$

解方程 $x^2 - x - 42 = 0$

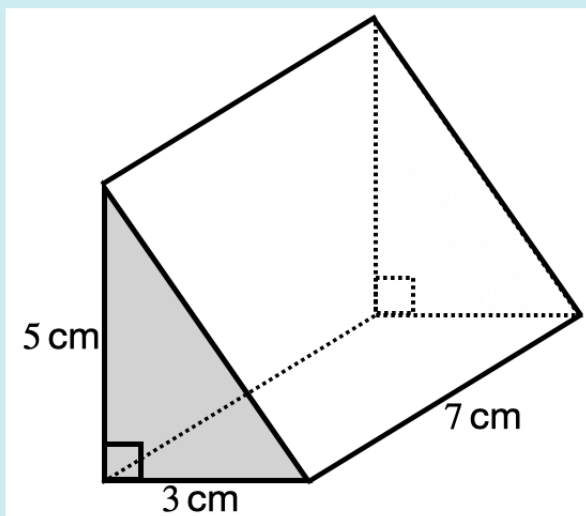
Answer1

, Answer2

3.

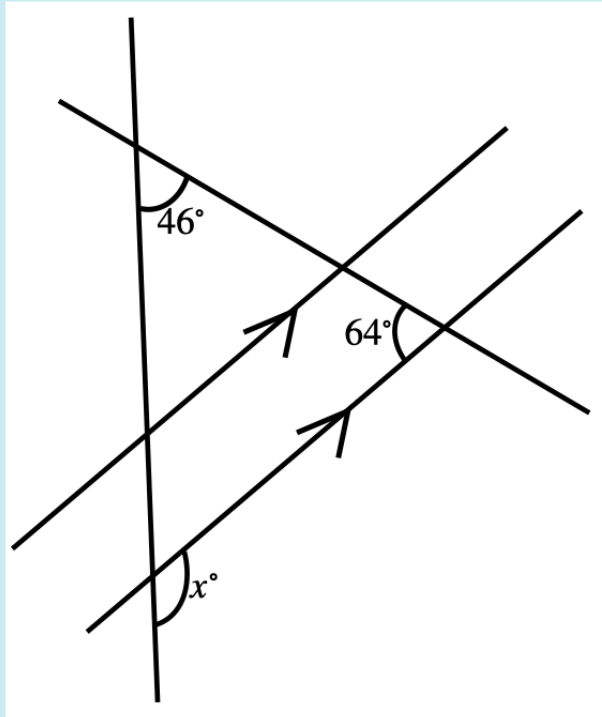
Find the volume of the following shape

求出立方体的体积



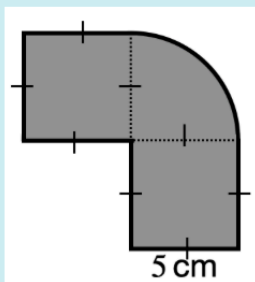
Answer

4. Find the value of x
求出 x 的值



Answer

5. Find the area of the following shape
求出阴影部分面积



Answer

6. Find the mean of the following numbers.

求出以下数字的平均数

12 14 15 11 10 10 17 21

Answer

7.

In a bag there are 4 red balls and 8 green balls. I choose two balls at random.

Find the probability that both the balls are green.

一个袋子里有四个红球和八个绿球，我随机从中抽取两个球，请问两个球都是绿色的概率是多少

Answer

8.

Find the sum of the square root of 36 and the cube of 3.

求出36的平方根与3的立方之和

Answer

9.

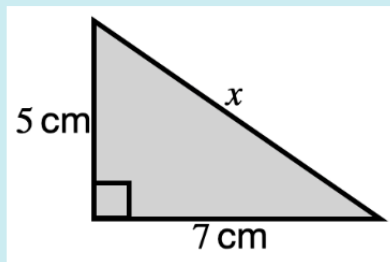
Find the n^{th} term of the following pattern.

找出以下数字的规律

17, 14, 11, 8, 5

Answer

10.

Find the value of x .求出 x 的值

Answer

Section A: Answer grid

1. Answer is 4	6. Answer is 13.75
2. Answer1 is 7, Answer2 is -6 Or Answer1 is -6 , Answer2 is 7	7. Answer is 0.424
3. Answer is 111	8. Answer is 33
4. Answer is 69.6	9. Answer is $-3n + 20$
5. Answer is 52.5	10. Answer is 8.60

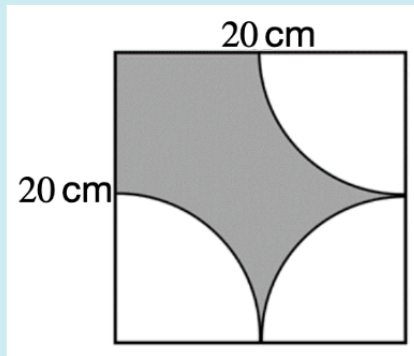
Section B

1.

The diagram shows a square with sides of length 20 cm. Three quarter circles are removed from the square.

What is the area of the shaded region?

如图所示，一个边长为 20 cm 的正方形，在三个顶点处挖去一个四分之一圆，求阴影部分的面积。



Answer

2.

Three equations are given as

$$-a - b - 2c = 3$$

$$2a - b + 2c = 0$$

$$-a + b = 1$$

Solve them to find a, b, c

解方程组

$$-a - b - 2c = 3$$

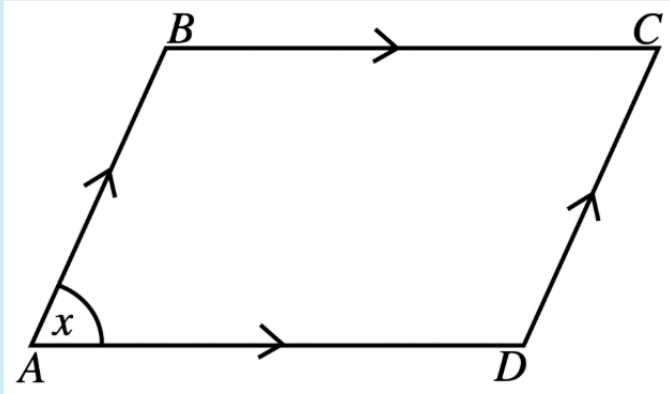
$$2a - b + 2c = 0$$

$$-a + b = 1$$

求

$$a = \text{□}, b = \text{□}, c = \text{□}$$

3.



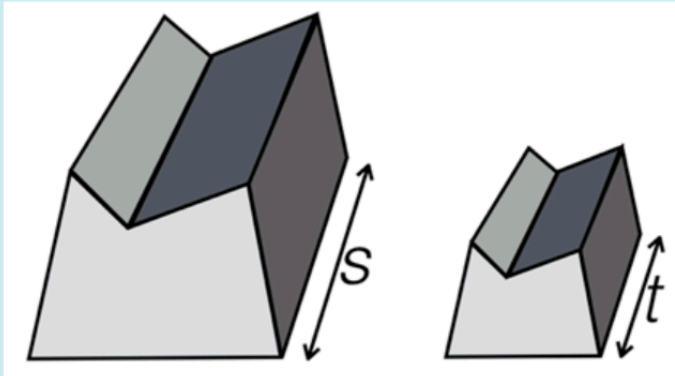
In the diagram, the area of the shape is given as $100\sqrt{3}$.

If $AB : BC$ is equal to $1 : 2$ and $x = 60$, find the length of BC .

如图所示，图形的面积是 $100\sqrt{3}$ 。已知 $AB : BC$ 等于 $1 : 2$ ， $x = 60$ 求 BC 的长。

Answer

4.



Two similar prisms are shown, the volume of the larger prism 243 cm^3 and the volume of the smaller prism is 72 cm^3 .

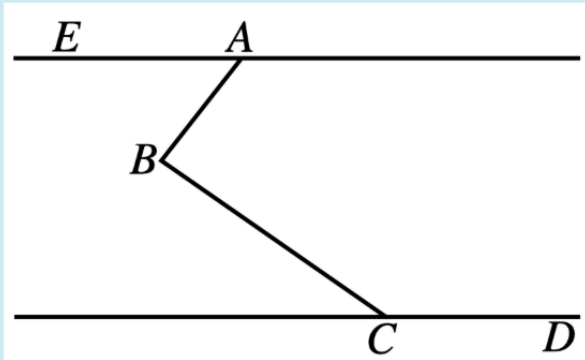
If $t = 9$, what is the value of s ?

图中为两个相似棱柱。大棱柱的体积是 243 cm^3 ，小棱柱的体积是 72 cm^3 。已知 $t = 9$ ，求 s 的值。

Answer

5.

EA is parallel to CD , angle $EAB = 25^\circ$ and angle $BCD = 155^\circ$. What is the acute angle ABC ?



已知： EA 平行于 CD ， $\angle EAB = 25^\circ$ ， $\angle BCD = 155^\circ$ ，求锐角 $\angle ABC$ 。

Answer

6.

If the equation $2x(p - x) = 3$ has real and equal roots, find the exact values of p .

已知方程 $2x(p - x) = 3$ 有相等的实数根，求 p 的准确值。

Answer1 , Answer2

7.

A bag of balls contains 12 balls, 7 are red and 5 are blue. I take three balls from the bag without putting them back.

What is the probability that there are less than two blue balls?

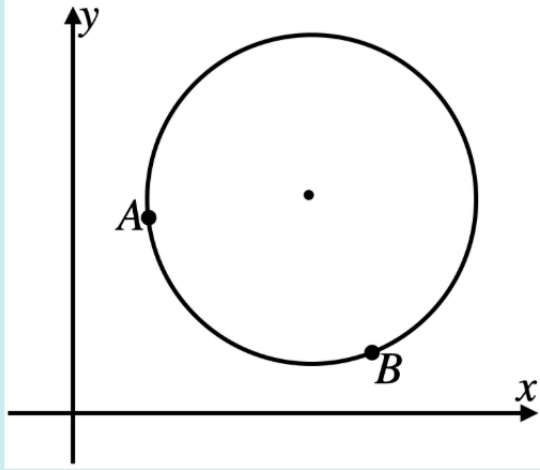
一个袋子里有12个球，七个红球，五个蓝球。从袋子里随机拿出三个球，每次拿出的球不再放回去，问三个球中少于两个蓝球的概率是多少？

Answer

8.

The line AB is a chord where $A(4, 7)$ and $B(12, 3)$.

Find the equation of the line that passes through the centre of the circle and the midpoint of AB .



已知：圆中的弦 AB 的端点坐标为 $A(4, 7)$ 和 $B(12, 3)$ 。求过圆心和 AB 的中点的直线的方程。

Answer

9.

An equation is given as $\frac{4}{y} = \frac{2}{x+5} + \frac{x}{3}, x \neq -5, y \neq 0$.

Make y the subject.

已知关于 x, y 的方程, $\frac{4}{y} = \frac{2}{x+5} + \frac{x}{3}, x \neq -5, y \neq 0$.

求 y 关于 x 的表达式。

Answer

10.

Find the product of two numbers if their difference is 48 and the sum of their squares is 3264.

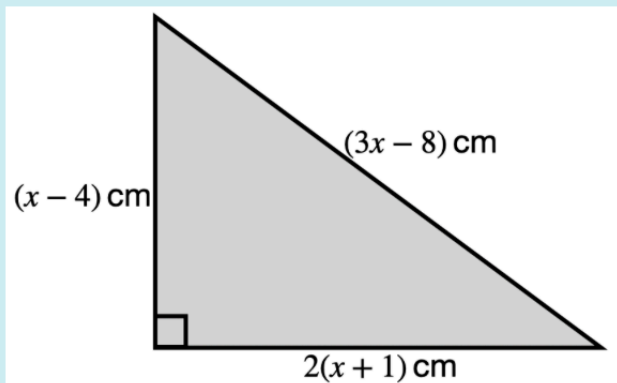
已知：两个数的差是48，两个数的平方和是3264。求两个数的积。

Answer

Section B: Answer grid

1. Answer is 164.4	6. Answer1 is $\sqrt{6}$, Answer2 is $-\sqrt{6}$ Or Answer1 is $-\sqrt{6}$, Answer2 is $\sqrt{6}$
2. Answer: $a = -5, b = -4, c = 3$	7. Answer is 0.636
3. Answer is 20	8. Answer is $y = 2x - 11$
4. Answer is 13.5	9. Answer is $y = \frac{12(x + 5)}{(x + 2)(x + 3)}$
5. Answer is 50	10. Answer is 480

Section C



Find the area of the triangle shown. Show your working.

求出三角形的面积，需要写出解题过程。

Equation is $x^2 -$ $x +$ $= 0$

$x_1 =$, $x_2 =$

Answer

Answer:

By Pythagoras' theorem,

$$(x - 4)^2 + 4(x + 1)^2 = (3x - 8)^2$$

Expand and simplify

$$x^2 - 8x + 16 + 4x^2 + 8x + 4 = 9x^2 - 48x + 64$$
$$4x^2 - 48x + 44 = 0$$

$$\text{Or } x^2 - 12x + 11 = 0$$

$$\text{Factorise and solve for } x: (x - 11)(x - 1) = 0$$

Reject $x = 1$ since $x - 4 < 0$ and $3x - 8 < 0$

$$\text{So } x = 11$$

Now, base is $2(x + 1) = 24$ cm, height is $(x - 4) = 7$ cm

$$\text{Area} = \frac{1}{2} \times 24 \times 7 = 84 \text{ cm}^2$$

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Sample Paper 2

Mathematics Paper Sections A, B and C 数学 A、B、C 部分

60 minutes

36 marks

Instructions:

- A scientific function calculator may be used. 科学函数计算器
- The test will be taken on a computer. 此考试在电脑上作答
- Scratch paper is provided. 提供草稿纸
- No marks are taken away for incorrect answers. 答错不得分
- You do not need to include units for any of your answers. 答案中不需要写单位
- For Section A, each correct answer is awarded 1 mark. A 部分每个正确的答案得 1 分
- For Section B, each correct answer is awarded 2 marks. B 部分每个正确的答案得 2 分
- Section A is worth 10 marks. A 部分总分为 10 分
- Section B is worth 20 marks. B 部分总分为 20 分
- Section C is worth 6 marks. C 部分总分为 6 分
- You will need to fill in multiple boxes in Section C to gain marks
C 部分需要填在多个格子里填来得分

Do not begin until instructed to do so.
请等监考老师说开始时，方可翻阅试卷。

Section A

1. Solve the equation $-6 + 11x = -84 + 8x - 2(3x + 6)$.

解方程 $-6 + 11x = -84 + 8x - 2(3x + 6)$.

Answer:

2. The quadratic equation $-2x^2 + x - 18 = 4x - 3x^2$ has solutions x_1, x_2 .

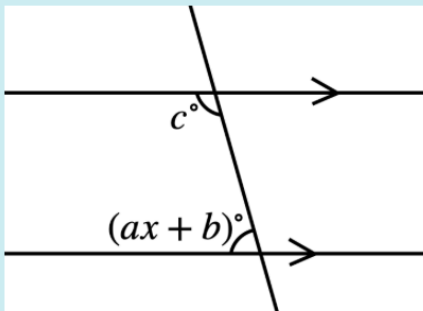
What is the value of $x_1 + x_2$

二次方程 $-2x^2 + x - 18 = 4x - 3x^2$ 的解分别是 x_1, x_2 .

$x_1 + x_2$ 的值是多少?

Answer:

3. In the diagram shown, $a = 6$, $b = 7$ and $c = 125$.



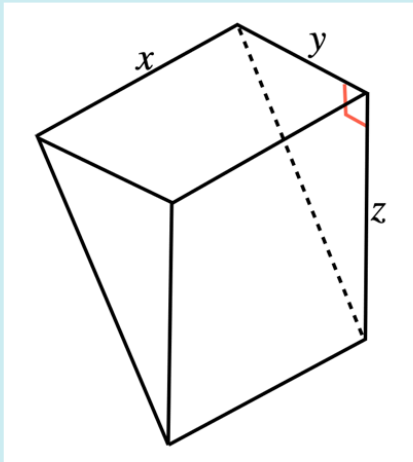
Find the value of x . [You do NOT need to include the $^\circ$ symbol]

如图所示, $a = 6$, $b = 7$ 和 $c = 125$.

求 x 的值。[不需要标注角度 $^\circ$ 的符号]

Answer:

4. Given that $x = 16$, $y = 3$ and $z = 4$.



Find the surface area of the shape shown.

已知 $x = 16$, $y = 3$ 和 $z = 4$.

求如图所示图形的表面积。

Answer:

5. The area of a circle with circumference 28π is $k\pi$.

What is the value of k ?

已知一个圆的周长为 28π ，它的面积是 $k\pi$.

求 k 的值。

Answer:

6. The average height of a family of 5 is 175cm.
Four of the family members have heights of 171, 168, 181 and 177.
What is the height of the 5th member?
[You do NOT need to include the cm in your answer]
一个家庭五位成员的平均身高是 175cm。
其中四位家庭成员的身高分别是 171, 168, 181 和177。
求第五位家庭成员的身高。
[你的答案不需要写单位“cm”]

Answer:

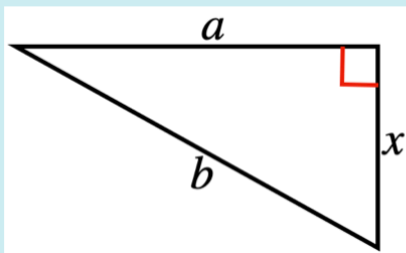
7. A jar contains 5 Blue balls, 9 Red balls and 13 Yellow balls.
Find, to 3 decimal places, the probability of choosing Red or Blue.
一个罐子里有 5 个蓝色的球，9 个红色的球，以及 13 个黄色的球。
求随机抽取一个球是红色或者蓝色的概率，结果精确到小数点后三位。

Answer:

8. Find the product of the cube root of 512 and the square of 13.
求 512 的立方根和 13 的平方的乘积。

Answer:

9. Given that $a = 5.1$ and $b = 13.8$, find the value of x .



Give your answer to 3 significant figures.

如图所示，已知 $a = 5.1$ 和 $b = 13.8$ ，求 x 的值。结果精确到三位有效数字。

Answer:

10. The sequence $14, 26, 38, 50, \dots$ has n^{th} term $pn + q$.

What is the value of pq ?

数列 $14, 26, 38, 50, \dots$ 的第 n 项是 $pn + q$.

求 pq 的值。

Answer:

Section A: Answer grid

1. Answer is -10	6. Answer is 178
2. Answer is 3	7. Answer is 0.519
3. Answer is 8	8. Answer is 1352
4. Answer is 204	9. Answer is 12.8
5. Answer is 196	10. Answer is 24

Section B

1. Solve the linear equations

$$-2x + 2y + 4z = 10$$

$$4x + 3y - 4z = -6$$

$$2x + 3y + 3z = 0$$

to give the value of $x - y + z$.

解线性方程组，求出 $x - y + z$ 的值。

Answer:

2. The curve $y = \frac{1}{4x}$ meets the line $24y - 36x = -106$ at two points.

What is the value of the **positive** x -coordinate where they meet?

曲线 $y = \frac{1}{4x}$ 与直线 $24y - 36x = -106$ 相交于两点。

求它们交点坐标中正的横坐标值。

Answer:

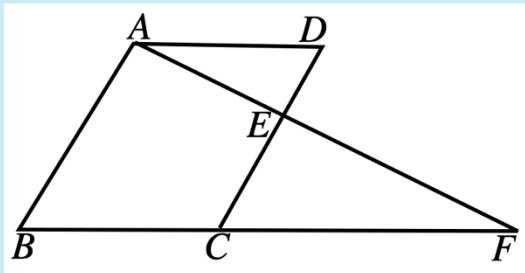
3. If $\frac{12x + 12}{(x + 4)(4x - 2)} = \frac{m}{x + 4} + \frac{n}{4x - 2}$, then what is the value of $m + n$?

已知 $\frac{12x + 12}{(x + 4)(4x - 2)} = \frac{m}{x + 4} + \frac{n}{4x - 2}$.

求 $m + n$ 的值。

Answer:

4. In the diagram shown, AB is parallel to DC and AD is parallel to BF .



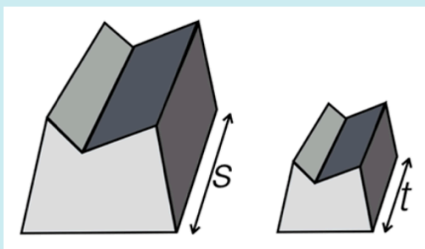
If angle $AED = 95$ and angle $EFC = 36$, what is angle ABC ?

[You do NOT need to include the $^\circ$ symbol.]

如图所示，已知 $AB \parallel DC$, $AD \parallel BF$ ，如果角 $AED = 95$ 度和角 $EFC = 36$ 度，求角 ABC 。[不需要标注角度符号 $^\circ$]

Answer:

5. Two similar prisms are shown where the volume of the larger prism is 3750cm^3 , and the volume of the smaller prism is 30cm^3 .



If $s = 30\text{cm}$, what is the value of t ?

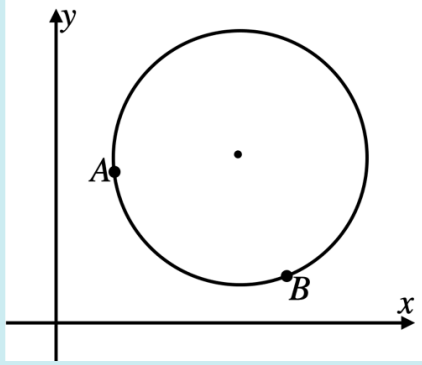
[You do NOT need to include the cm units.]

如图所示有两个相似棱柱，较大棱柱的体积是 3750cm^3 ，较小棱柱的体积是 30cm^3 。

如果 $s = 30\text{cm}$ ，求 t 的值。[不需要标注单位符号 cm]

Answer:

6. The line segment AB is a chord with $A(1, 8)$ and $B(9, 5)$.



The line that passes through the centre of the circle and the midpoint AB is given as $ax + by + c = 0$, where a, b, c are integers and $a > 0$.

What is the value of c ?

如图所示，线段 AB 是圆上的弦，坐标分别为 $A(1, 8)$ 和 $B(9, 5)$ 。

一条经过圆心和 AB 中点的直线方程是 $ax + by + c = 0$ ， a, b, c 都是整数且 $a > 0$ 。

求 c 的值。

Answer:

7. The equation $3x^2 + 2mx + m = 0$ has no real solutions.

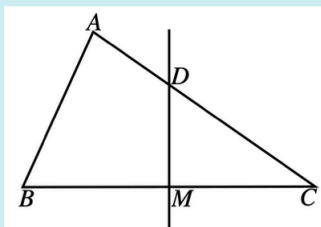
The set of values for m satisfies $p < x < q$.

What is the value of $p + q$?

已知方程 $3x^2 + 2mx + m = 0$ 没有实数解。 m 的取值范围是 $p < x < q$ ，求 $p + q$ 的值。

Answer:

8. In the diagram shown, triangle ABC has $AB = 4.7$ and $AC = 11.7$.

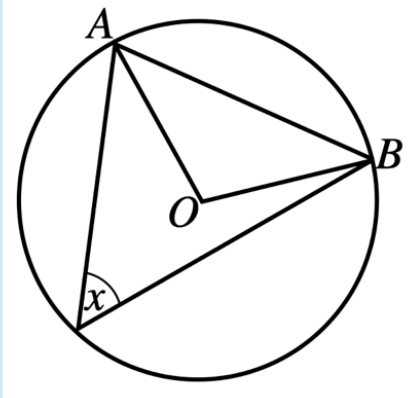


If M is the midpoint of BC and DM is perpendicular to BC then what is the perimeter of triangle ABD ?

如图所示的三角形 ABC ，已知 $AB = 4.7$ ， $AC = 11.7$ 。如果点 M 是 BC 的中点，且 DM 与 BC 垂直，求三角形 ABD 的周长。

Answer:

9. The diagram shows a circle with centre O and radius 6.



If $x = 56^\circ$, what is the length of the chord AB to 3 significant figures?

如图所示的圆，圆心是 O ，半径是 6. 如果 $x = 56^\circ$ ，求弦 AB 的长度，结果精确到三位有效数字。

Answer:

10. I have 18 pens in my pencil case. There are 11 full pens and 7 empty pens.

I will choose 3 pens from my pencil case without putting them back.

What is the probability that the number of empty pens I choose is no more than 1? Give your answer to 3 decimal places.

我的文具盒里有 18 支笔，其中 11 支笔是全新的，7 支是使用完的笔。

我要不放回地随机抽取三支笔，求我抽到的使用完的笔小于 1 支的概率，结果精确到小数点后三位。

Answer:

Section B: Answer grid

1. Answer is -5	6. Answer1 is -41
2. Answer is 3	7. Answer is 3
3. Answer is 6	8. Answer is 16.4
4. Answer is 49	9. Answer is 9.95
5. Answer is 6	10. Answer is 0.674

Section C

A bag contains 5 Black balls and x Blue balls. The probability of choosing two balls at random of different colours is $\frac{70}{171}$.

一个袋子里有5个黑色的球和 x 个蓝色的球. 已知随机抽取两个球, 颜色不同的概率是 $\frac{70}{171}$.

Using the information given, form a quadratic equation in the form $px^2 + qx + r = 0$, where $p > 0$ and p, q, r are all integers in their simplest form.

根据题目信息可以列出一个一元二次方程组, $px^2 + qx + r = 0$, $p > 0$, p, q, r 都是最简整数形式.

$$p = \square, q = \square, r = \square.$$

Solving this quadratic equation gives $x = \square$.

解这个方程, 求出 x 的值.

Find the probability of choosing one Blue ball from the bag, giving your answer to 3 significant figures.

求随机抽取一个球是蓝色的概率, 结果精确到三位有效数字.

$$\frac{2 \times 5}{x+5} \times \frac{x}{x+4} = \frac{70}{171}$$

$$171x = 7(x^2 + 9x + 20)$$

$$7x^2 - 108x + 140 = 0$$

$$x = \frac{108 \pm \sqrt{108^2 - 2 \times 7 \times 140}}{14} \therefore x = 14$$

$$P(b) = \frac{14}{19} = 0.737$$

$$p = 7, q = -108, r = 140$$