

A 7 year old business began with 2 employees, the next year had 4 employees, then the next year had 7 employees, then the next year had 11 employees. How many employees does the business have the next year?

2, 4, 7, 11

Second year - First Year = $4 - 2 = 2$

Third Year - Second Year = $7 - 4 = 3$

Fourth Year - Third Year = $11 - 7 = 4$

Fifth Year - Fourth Year = 5[From the above sequence]

So, fifth year employees = 5 + Fourth Year Employees

$$= 5 + 11 = 16 \text{ Employees} \quad \text{Answer}$$

An ordinary die is rolled.

A) {1, 6}

B) {36}

C) {1, 2, 3, 4, 5, 6}

D) {6}

C) {1, 2, 3, 4, 5, 6} Answer

The above answer represents the set that shows all the values that can appear when rolling a dice.
So C would be the answer

how to evaluate algebraic expressions. $2(z+3)-5z$ for $z=-1$

$$2(z+3)-5z$$

Given $z=-1$, putting value of Z in the given equation

$$= 2(-1+3) - 5(-1)$$

$$= 2(2)+5$$

$$= 4 + 5$$

$$= 9 \text{ Answer}$$

If you recycle one aluminum can, you save enough energy to run a TV for four hours. Write the ratio of cans to hours.

1 Aluminium Can saves 4 hrs of energy.

$$= 1/4 \text{ cans/hour}$$

So, Ratios is $1/4$ Answer

$3-i - 6 + 2i$ how do you simplify this equation. i'm stumped and my teacher wont help anyone in class.

Given Equation is

$$3-i - 6 + 2i$$

Keeping the similar terms together

$$= 3 -6 -i+2i$$

Adding/Subtracting similar terms

$$= -3 + i$$

$$= i - 3 \text{ Answer}$$

if gas costs 76 per litre, how much 15 litres cost?

Gas costs 76 per litre

Cost of 1 litre gas = 76 cent

$$\begin{aligned} \text{Cost of 15 litre gas} &= 76 * 15 \\ &= 1140 \text{ Cents} \\ &= \$ 11.40 \end{aligned}$$

Find the products. $(2x + 1) (3x - 2)$

$$\begin{aligned} &(2x + 1) (3x - 2) \\ &= 6x^2 - 4x + 3x - 2 \\ &= 6x^2 - x - 2 \quad \text{Answer} \end{aligned}$$

Convert this angle in degrees to radians. -210°

$$\begin{aligned} \text{Radians} &= \text{Degrees} \times \left(\frac{\pi}{180}\right) \\ &= -210 \times \left(\frac{\pi}{180}\right) \\ &= -\frac{7\pi}{6} \end{aligned}$$

To convert in polar coordinates, we subtract -7π from 24π

$$= \frac{17\pi}{6} = (17 \times 3.14) / 6 = 8.90 \quad \text{Answer}$$

Convert this angle in radians to degrees. Express your answer in decimal form, rounded to two decimal places. 6.52

$$\text{Degrees} = \text{Radians} \times \left(\frac{180}{\pi}\right)$$

$$\text{Degrees} = 6.52 \times \left(\frac{180}{\pi}\right)$$

$$= (6.52/3.14) \times 180$$

$$= 2.076 \times 180 = 373.68 \text{ **Answer**}$$

Angles greater than 360 represent one or more full rotations over a circle.

In this problem, A denotes the area of the sector of a circle of radius r formed by the central angle θ . Find the missing quantity. Round answers to three decimal places, if necessary. $r = 6$ meters, $\theta = 1/2$ radian

Area of Arc

$$\text{Area} = (\theta/2)r^2$$

$$= (1/4) (6)^2$$

$$= 9 \text{ meter}^2 \quad \text{**Answer**}$$

In this problem, A denotes the area of the sector of a circle of radius r formed by the central angle θ . Find the missing quantity. Round answers to three decimal places, if necessary. $\theta = 1/6$ radian, $A = 5$ square feet

Area of Arc

$$A = (\theta/2)r^2$$

$$r^2 = 2A/\theta$$

$$= (2 \cdot 5) / (1/6)$$

$$= 10 \cdot 6 = 60$$

$$r = \sqrt{60}$$

$$= 7.75 \text{ foot} \quad \text{**Answer**}$$