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Measurement

On her second birthday, Angela was 90 cm tall. Today is her 18th birthday, and she is 176.9 cm tall. How many cm per year did she grow, on average, between the two birthdays?

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Measurement

Riley sailed his boat into a harbour he had never been to before. His boat draws 92 cm, which means that the lowest part of the boat is 92 cm below the surface of the water. He had an old chart that said that the harbour was 3 fathoms deep. (A fathom is 183 cm.) If the old chart is still accurate, how deep was the water from the bottom of the boat to the bottom of the harbour?

26

Money

Darcy's band played in a concert. Her agreement with the theatre was that the band would get 50% of gross ticket sales with $300 guaranteed. (Gross sales means total sales before any expenses are deducted.) The theatre sold 98 tickets at $12 each. How much was the band paid?

77

Money

Darcy's band played in a concert. Her agreement with the theatre was that the band would get 50% of gross ticket sales with $300 guaranteed. (Gross sales means total sales before any expenses are deducted.) A very well-known band was playing nearby. Only 18 tickets were sold at $12 each. How much was the band paid?

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Counting

In an orchestra of 50, $\frac{1}{2}$ of the instruments are strings, $\frac{2}{5}$ are winds, and $\frac{1}{5}$ percussion. If five more percussion instruments are added for a special concert, what fraction of the orchestra will the percussion section be?

117

Counting

You've been asked to design a case to hold 24 cans of soft drinks. To make it easy to handle, the case should not be long and thin. The dimensions of the case should be as short as possible. How many layers of cans would you have? How many cans on each layer? Arranged how?

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171 Probability

There are 75 gumballs in a bag. There are 30 red gumballs, 20 green, 15 yellow, 5 blue and 5 orange. If you reach into the bag without looking, what is the probability that you will get a red or a green gumball?

172 Probability

A standard deck of playing cards has 52 cards. No two cards are alike. Each card has both a value and a suit. There are 4 suits: hearts, diamonds, clubs and spades. Each suit has 13 cards in it with values of 2, 3, 4, 5, 6, 7, 8, 9, 10, jack, queen, king and ace. If you choose a card at random, what are the chances that you will choose a heart?