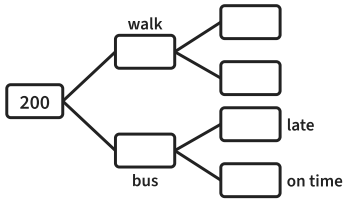
Percentages and frequency trees

1

200 students were asked how they travel to school. 40% walk and the rest come by bus. 25% of the bus students arrived late. How many bus students arrived late?



walk 40% of 200 = 80

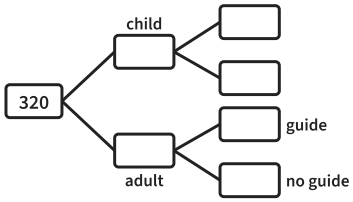
bus 200 − 80 = 120

late ☐ of ☐ = ☐

Answer _____

2

A museum had 320 visitors. 25% were children and the rest were adults. 35% of the adults bought a guidebook. How many adults bought a guidebook?



child 25% of 320 = 80

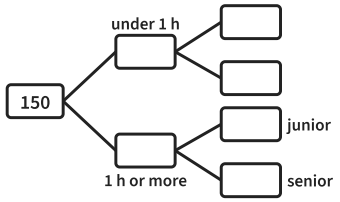
adult ☐ − ☐ = ☐

guidebook ☐ of ☐ = ☐

Answer _____

3

150 people ran a race. 60% finished in under an hour. Of the others, 30% were juniors. How many juniors took an hour or more?



under 1 h ☐ of ☐ = ☐

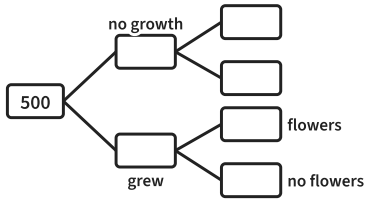
1 h or more ☐ − ☐ = ☐

juniors ☐ of ☐ = ☐

Answer _____

4

500 seeds were planted. 12% did not grow. 75% of the seeds that grew had flowers. How many seeds grew and had flowers?

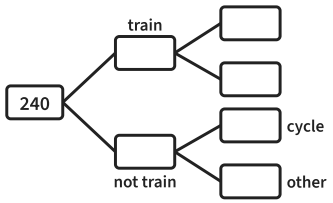


flowers ☐ of ☐ = ☐

Answer _____

5

240 people went to a concert. $\frac{3}{8}$ went by train. 20% of the others cycled. What fraction of all the people cycled?

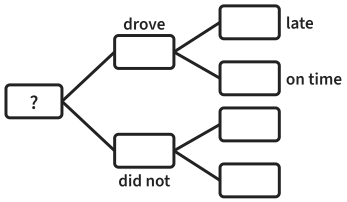


_____

Answer _____

6

60% of a group of people drove to a meeting. 30% of the drivers were late. 45 drivers were late. How many people were in the group?

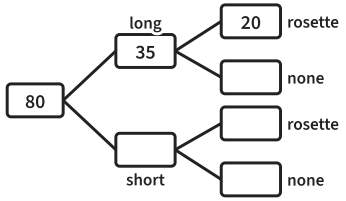


_____

Answer _____

7

80 dogs were at a show. 35 had long hair, and 20 of these won a rosette. 40% of the dogs with short hair won a rosette. What percentage of all the dogs won a rosette?



_____

Answer _____

8

400 phones were tested. 5% were faulty. 30% of the faulty phones had a broken screen. A phone is picked at random. Find the probability that it has a broken screen.

_____

Answer _____

Percentages and frequency trees *further practice*

9

600 shoppers paid for their shopping.
45% paid by card and the rest paid cash.
20% of the card payers used a phone.
How many used a phone?

Answer _____

10

250 cars had a safety test. 16% failed.
$\frac{3}{5}$ of the cars that failed had a problem with the brakes. How many cars failed on the brakes?

Answer _____

11

360 students were asked about pets.
$\frac{5}{9}$ of them have a pet. 30% of the students with no pet want one.
How many students want a pet?

Answer _____

12

$\frac{3}{5}$ of the people at a café chose coffee.
40% of the coffee drinkers took sugar.
72 coffee drinkers took sugar.
How many people were at the café?

Answer _____

13

1000 people voted. 60% voted yes.
$\frac{1}{4}$ of the yes votes were sent by post, and 30% of the no votes were sent by post. What percentage of all the votes were sent by post?

Answer _____

14

A box holds 300 eggs. 8% are cracked.
$\frac{1}{4}$ of the eggs that are not cracked are brown. An egg is picked at random. Find the probability that it is brown and not cracked.

Answer _____

15

40% of the members of a club are juniors. Half of the juniors swim, and 25% of the seniors swim. 70 members swim.
How many members are there?

Answer _____

16

40% of 300 people drove to work, and 25% of the drivers were late.
Ben says 40% + 25% = 65% of the people were late drivers. Explain his mistake and find how many were late drivers.

Answer _____