Percentage of Amounts

The entirety of this worksheet should be completed without a calculator.

Section 1: Test Scores

1. Convert the following test scores into percentages.
a. 30 out of 60.
b. 7 out of 10.
c. 16 out of 20.
d. 40 out of 60.
e. 18 out of 20.
f. 15 out of 18
g. 12 out of 40.
h. 50 out of 150
i. 15 out of 35
j. 20 out of 85

Section 2: Percentage Profit and Loss

1. A house is bought for £80,000 and sold for £100,000, calculate the percentage profit.

2. A house is bought for £120,000 and sold for £90,000, calculate the percentage loss.

3. A car is bought for £20,000. Its value increases by 10% every year for two years. Calculate the percentage increase from two years ago till now.

4. Craig buys 20 books for £6 each. He manages to sell them all for £200. What is his percentage profit?

5. Tilly pays £15 to buy ingredients to make cakes and pie. She sells them all for £18, what is her percentage profit?

6. Brian buys a motorcycle for £12000, he sells it for £8500. What is the percentage loss?

Section 3: Problem Solving

1. Mrs Jones has decided to remove the flower bed from the garden and instead increase the amount of grass she has.
a. Calculate the original area of grass in her garden.
b. Calculate the new total area of grass.
c. Calculate the percentage increase.
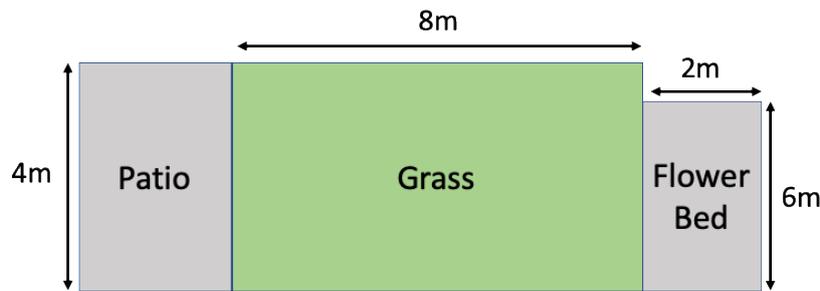
2. In her first week of work Tina earns £5.60 an hour. She works for 20 hours that week.
a. Calculate her total wage that week
b. Tina's wage increase to £6.40 an hour the following week, calculate her wage if she still works 20 hours that week.
c. Calculate the parentage increase in her wages from week one to week two.

3. In the year 1991, measurements of a snow slope were shown below.
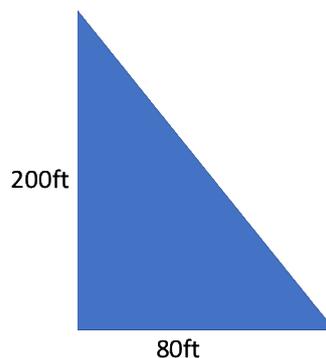
a. Calculate the gradient of the snow slope.
b. By the year 2018 the vertical height had been reduced to 180ft, but the horizontal distance remained the same. Calculate the new gradient.
c. Calculate the percentage that the gradient has decreased between 1991 and 2018.

4. A race course in built up into 4 stages which a race car drives through, registering the following times.

Stage 1: 1 minutes 20 seconds
Stage 2: 2 minutes 35 seconds
Stage 3: 3 minutes 5 seconds
Stage 4: 1 minute 20 seconds.

Calculate the percentage of time spent on stage 4.

5. Look at the petrol gauge below, what percentage of the tank is left?

6. Jack is playing a game. In order to win the game, you need to roll two dice and get two numbers that add up to a number greater than 9. What is Jack's probability of winning as a percentage?

7. **Use a calculator:** An information company's logo has been shown below. What percentage of the logo is made up of the rectangle?