metatutor

1.

(a) Work out $\sqrt{\dfrac{42 \times 2.5}{1.35}}$ to 2 significant figures

(1)

(b) Work out $\left(\dfrac{14.6}{2.36}\right)^3$ to 2 decimal places

(1)

2.
Lewis is planning on cooking a chicken from frozen.
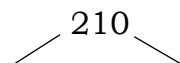He reads the instructions.

To cook:
1. Defrost for an hour for each 400g
2. Cook for 100 minutes

The chicken weighs 3.6 kilograms.
Lewis is going to start defrosting the chicken at 7am.
Will the chicken be ready to eat by 5:30pm?

(3)

3.
(a) Complete the prime factor tree.

210

(3)

(b) Using your prime factor tree, express 210 as a product of its prime factors.

(1)

4.
(a) Solve 8x – 17 = 35

(2)

(b) Expand and simplify (x + 4)(x – 5)

(2)

5.
Kate runs a catering company.
She needs to make 150 cups of coffee for a film crew.
Coffee is sold in 125g tins, which cost £2.25 each.
Each cup of coffee requires 5g of coffee.
How much will it cost Kate to buy the coffee she needs for the film crew?

(3)

6.
Mary drove at 60 miles per hour for 40 minutes.
Nathan drove at 30 miles per hour for an hour and a half.
How many more miles did Nathan drive than Mary?

(4)