Countdown to your final Maths exam …
Crossover … Part 1 (2020)

	Marks	Actual	☹ 😐 🙂
Q1. Product of prime factors (Clip 4)	2		
Q2. Multiples in context (Clip 5)	3		
Q3. Best Value (Clip 7)	4		
Q4. Frequency trees (Clip 2)	3		
Q5. Two-way tables (Clip 1)	4		
Q6. Estimation (Clip 70)	4		
Q7. Product of prime factors (Clip 4)	2		
Q8. Two-way tables (Clip 1)	4		
	26		

NON-CALCULATOR UNLESS SPECIFIED

Questions

Q1. Write 36 as a product of its prime factors.

(2)

Q2. Mel and Rob set the alarms on their phones to sound at 6.45 am.

Both alarms sound together at 6.45 am.
Mel's alarm then sounds every 9 minutes.
Robs alarm then sounds every 12 minutes.

At what time will both alarms next sound together?

(3)

(and for no marks … after how many presses of the snooze button does Mel eventually get out of bed?)

Q3. Tea bags are sold in three sizes of box.

Small
50 bags
£2.15

Medium
80 bags
£3.30

Large
125 bags
£5.18

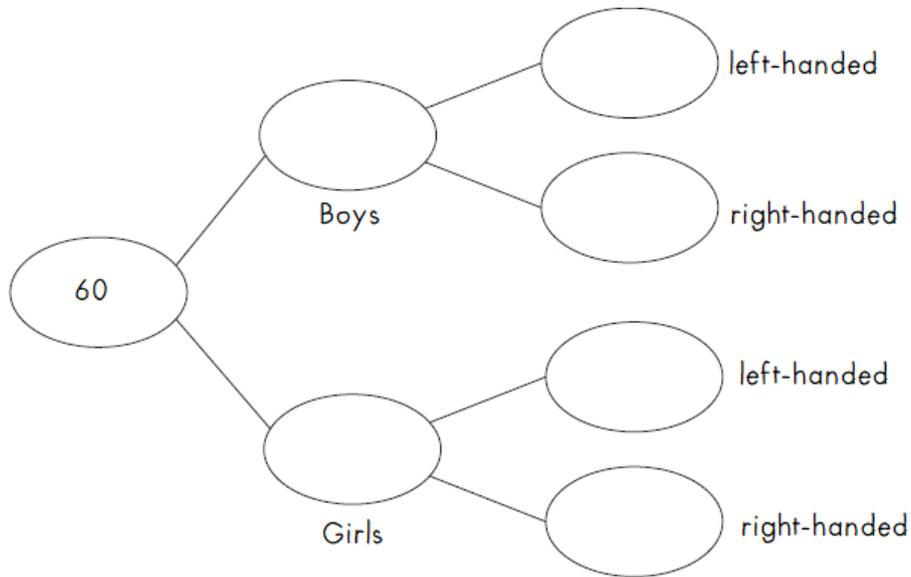Which size of box is the best value for money?

(4)

Q4. The below gives information about a group of students

22 of the 60 students are boys.   16 of the 34 right-handed students are girls.

Complete the frequency tree for this information.

(3)

Q5. 66 people went on a day trip.

Each person did only one activity on the trip. Each person went skating or went to an art gallery or went bowling.
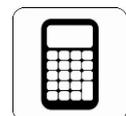
43 of the people are female. 4 of the 10 people who went skating are male.
20 of the people went to the art gallery. 10 males went bowling.

Work out the number of females who went to the art gallery.

(4)

Q6. Christian organised an event for a charity.

Each ticket for the event cost £19.50   Christian sold 485 tickets.

Christian paid costs of £7000   He gave all money left to the charity.

(a) Work out an estimate for the amount of money Christian gave to the charity.

(3)

(b) Is your answer to (a) an underestimate or an overestimate? Give a reason for your answer.

(1)

Q7. Express 56 as the product of its prime factors.

Q8. Milk is sold in $\frac{1}{2}$ pint bottles, in 1 pint bottles and in 2 pint bottles.

One weekend a shop sold 100 bottles of milk.

46 of the bottles were sold on Sunday.
15 of the bottles sold on Sunday were 2 pint bottles.
31 of the bottles sold on Saturday were $\frac{1}{2}$ pint bottles.
22 of the bottles sold were 2 pint bottles.
30 of the bottles sold were 1 pint bottles.

How many 1 pint bottles were sold on Sunday?