National 5 Practice Paper C

Answers

Paper 1

- Q1. 6·24
- Q2. $\frac{17}{28}$
- Q3. -6x 16
- Q4. a 15

- b $t = -\frac{1}{2}$
- Q5. x = 7, x = -1
- Q6. a (i) 27.5
- (ii) $Q_1 = 13$
- (iii) $Q_3 = 35$

- b 22
- C On average, both companies have the same waiting time since 27.5 = 27.5Waiting times for Fast-Cabs are more consistent since 5 < 22
- Q7. a = 4, b = -30
- Q8. a $m_{AB} = 2$
- $m_{AB} = 2$ b y = 2x 5
- c k=1

- Q9. a $f(x) = (x+3)^2 16$
- b (-3, -16)
- Q10. a 3n + 2b = 145

- b 5n + 3b = 240
- c One breakfast costs £5
- Q11. a 4

b $2\sqrt{3}$

 $\frac{2}{x+1}$

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Answers

Paper 2

- Q1. 62 600
- Q2. 102°
- Q3. $x = \sqrt[3]{\frac{y-c}{a}}$
- Q4. a 1100 cm^3

b 7.64 cm (2dp)

- Q5. 24.74 m
- Q6. x = 1.3, -3.3
- Q7. 101.25 ml
- Q8. $b^2 4ac > 0$, therefore two real and distinct roots
- Q9. 3.25 m
- Q10. a 78.6°

- b 92.22 cm²
- Q11. $x = 105.9^{\circ}$, 285.9°
- Q11 b $\sin^3 x + \sin x \cos^2 x = \sin x (\sin^2 x + \cos^2 x) = \sin x$ (Since $\sin^2 x + \cos^2 x = 1$)
- Q12. a $\frac{x}{75}$

b 60 km/h