

# Sig figs / Sci not<sup>n</sup> (Credit Past Paper ans 2003 – 2007)

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(A) 1. 5090

(B) 1.  $8.64 \times 10^{12}$

(C) 1.  $3.24 \times 10^5$

(D) 1.  $3.12 \times 10^8$  km

# Bearings

(Credit Past Paper ans 2003 – 2007)

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(A) 3. 47.7 km

(B) 7. 11.0 km

(C) 6. (a)  $124^\circ$   
(b) 305 m

(D) 6. 27.2 km

# Equa / Inequa / Alg expression

(Credit Past Paper ans 2003 – 2007)

(A) 6.  $\frac{2}{5}$

(B) 9. (a) 25 litres  
(b)  $R = \frac{2000}{c} - kt$

(C) 4. 2.2, -4.2%

(D) 6. -10

(E) 9. (a)  $x + y = 20$   
(b)  $5x + 2y = 79$   
(c) 13

(F) 11. (a)  $3x$   
(b) (i) £38  
(ii)  $2x + 8$   
(c) 9

(G) 4.  $x < 22$

(H) 11. (a)  $A = (10 - x)(6 - x)$   
 $= x^2 - 16x + 60$   
(b) 4 cm

(I) 10. multiplied by  $\frac{1}{8}$  (or divided by 8)

(J) 11. (a)  $x + y = 300$   
(b)  $4x + 6y = 1380$   
(c) 210 standard and 90 deluxe

# Factorising (Credit Past Paper quest 2003 – 2007)

(A) 5. Factorise  
(P1)

$$2x^2 - 7x - 15.$$

KU	RE
2	

(B) 5. (a) Factorise  
(P1)

$$4x^2 - y^2.$$

(b) Hence simplify

$$\frac{4x^2 - y^2}{6x + 3y}$$

KU
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1
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2
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# Factorising (Credit Past Paper ans 2003 – 2007)

(A) 5.  $(2x + 3)(x - 5)$

(B) 5. (a)  $(2x - y)(2x + y)$   
(b)  $\frac{2x - y}{3}$

# Percentages (Credit Past Paper ans 2003 – 2007)

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(A) 6. 400 g

(B) 4. 128 mg

(C) 3. £17.50

(D) 3. £300

(E) 5. £135

# Pythagoras (Credit Past Paper ans 2003 – 2007)

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(A) 5. not right-angled

(B) 6. 48 metres

# Remove brackets

(Credit Past Paper ans 2003 – 2007)

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(A) 3.  $-6x - 16$

(B) 4. (a)  $3x^2 + 11x - 4$

(C) 4.  $m = \frac{3P+8}{2}$  or  $m = \frac{3P}{2} + 4$

(D) 5.  $x^2 + 12x + 27$

(E) 7.  $a - 2a^{\frac{1}{2}}$

# Surds / Indices (Credit Past Paper ans 2003 – 2007)

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(A) 12. (a) 4  
(b)  $2\sqrt{3}$

(B) 11. (a)  $10\sqrt{3}$   
(b)  $1\frac{1}{3}$

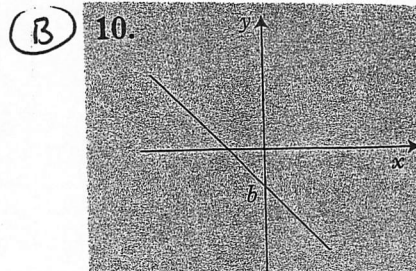
(C) 11. (a)  $25\sqrt{2}$   
(b)  $t = \frac{1}{2}$

(D) 4. (b)  $2m^{\frac{1}{2}} + m^{\frac{5}{2}}$   
(c)  $\sqrt{5}$



# Straight Line (Credit Past Paper ans 2003 – 2007)

- (A) 6. (a) 2  
(b)  $y = 2x - 5$   
(c)  $k = 1$



2. (a)  $v = -\frac{2}{3}t + 100$   
(b) 45 minutes

(D) 5.  $y = -2x + 6$

- (E) 9. (a) £10  
(b) 5 pence

(F) 4.  $y = \frac{2}{3}x + 8$

(G) 6.  $f = \frac{4}{5}d + 2$

# Area / Vol / Length

(Credit Past Paper ans 2003 – 2007)

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(A) 13.  $3x$

(B) 4. (a)  $1099 \text{ cm}^3$   
(b)  $7.6 \text{ cm}$

(C) 9.  $1902 \text{ cm}^3$

(D)  $12.35 \text{ cm}$

(E) 8.  $6 \text{ cm}$

(F) 10. (a)  $150 \text{ m}^2$   
(b)  $12 \text{ m}$

(G) 7. (a)  $504 \text{ cm}^3$   
(b)  $327 \text{ cm}$

(H) 12. (a)  $113.1 \text{ cm}^3$   
(b)  $3.78 \text{ cm}$

(I) 9.  $3\sqrt{2}$

# Trig (Credit Past Paper ans 2003 – 2007)

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(A) 6. 6.6 cm

(B) 7.  $37^\circ$

(C) 9.  $a = 2, b = 4$

(D) 5. 1190 m

(E) 6.  $18.4^\circ$

(F) 7. 80 cm

(G) 10.  $228.6^\circ, 311.4^\circ$

(H) 3.  $187.5 \text{ cm}^2$

(I) 11. (a)  $35.3^\circ, 144.7^\circ$   
(b)  $17.6^\circ$  or  $72.4^\circ$

(J) 5.  $11.3^\circ$

(K) 10. (a) 3.87 metres  
(b) 150.6 seconds  
(c) 209.4 seconds

(L) 8. 10 cm

(M) 10.  $143.1^\circ, 216.9^\circ$

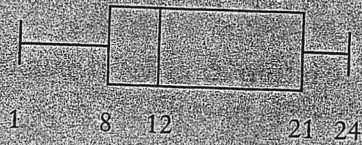
(N) 13.  $b = 2, c = 3$

# Stats (Credit Past Paper ans 2003 – 2007)

(B) 25%

- (C) 2. (a) 46  
 (b) 4.0987  
 (c) Less variation in price of sugar than there is in milk

(D) 5. Average Monthly Temperature



(F) 3.  $\bar{x} = 51$ ,  $s.d = 1.41$

(H) 7. 80 (km/h)

Speed	$f$	Cumulative Frequency
30	1	1
40	4	5
50	9	14
60	14	28
70	38	66
80	47	113
90	51	164
100	32	196
110	4	200
	200	

(I) 2. 79.5, 7.09

- (J) 2. (a) 76.5, 6.75  
 (b) *Valid comments for example:*
- The children's pulse rates tend to be higher.
  - There is less variation in the children's pulse rates.

- (K) 3. (a) mean = 24  
 standard deviation = 7  
 (b) On average, more birds visit Erin's table.  
 The number of birds visiting Luke's table varies more.

# Fractions (Credit Past Paper ans 2003 – 2007)

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(A) 2.  $\frac{17}{28}$

(B) 2.  $\frac{11}{5}$

(C) 4.  $\frac{7m+3}{m(m+1)}$

(D) 2.  $\frac{21}{6}$

(E) 2.  $4\frac{6}{35}$  or  $\frac{146}{35}$

(F) 2.  $\frac{19}{10}$