

Magdalen College School Oxford: 13+ Maths Specimen Paper



School: Magdalen College School

Subject: Maths

Level: 13+

Time: 60 mins

Type: Sample Paper

Year in use: Currently available from Magdalen College School's website (last checked Oct 2014)

Q ▾

Answer ▾

Solution ▾

1.

(a) $8x - \frac{y}{2}$

(b) $4x$

(c) 3

(d) $\frac{7x}{12}$

(e) $kn(5n + k)$

(f) $5a - 3$

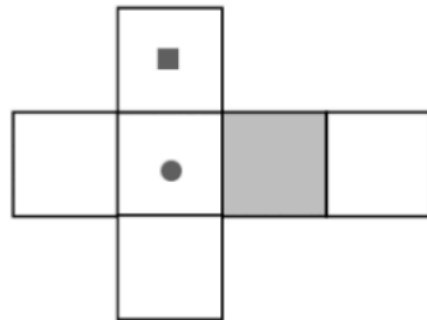
2. 7.920 km

3. 120

4. 90 km/hr

5. 4, 4, 5, 7 and 10
or
4, 4, 5, 6 and 11

6.



7.

- (a) 3×2
- (b) $40/10$
- (c) $2/3$
- (d) $(2 + 2)/(2 \times 2)$

8. 182 mmm

9. (a) 7
(b) 9
(c) 16
(d) $\frac{4}{3}$

10. 78.5 cm^2

11. 1003, 1030, 1012, 1021, 1102, 1111, 1120, 1201, 1210,
1300

12. $A = \underline{5}$; $B = \underline{6}$; $C = \underline{0}$; $D = \underline{1}$; $E = \underline{7}$; $F = \underline{4}$; $G =$
 $\underline{3}$; $H = \underline{2}$

13. (a) 20°
(b) 100°

14. (a) 25 yards
(b) 9 ft 4 in
(c) 18.7 pints

15. (a) 5
(b) 6
(c) 1
(d) 4.5

16. (a) mirror
(b) rotational
(c) 4
(d) 16

17. (a) $2/3$
(b) $3/5$
(c) $5/8$
The next two answers are: $8/13$ and $13/19$.

18. 280 cm^2

19. (a) 4.5
(b) 5.5
(c) 9
(d) 16

(a) Yes

(b) Yes

(c) No

20. Reason: If $n = 41$, then n^2 will be divisible by 41. Also, $n+41 = 2$ times 41, which is also divisible by 41. The total of these two numbers will be a multiple of 41, hence it will also be divisible by 41.