

PRACTICE PAPERS



Rewarding Learning

**General Certificate of Secondary Education
2020**

Mathematics

Unit M1

(With calculator)

Foundation Tier

PRACTICE

**MARK
SCHEME**

1 (a) 8	A1
(b) $19 + 14 = 33$	MA1
(c) $10 - 4 = 6$	MA1
2 (a) circle drawn	A1
(b) (i) radius labelled	A1
(b) (ii) chord labelled	A1
3 $6 \times 84 + 7 \times 55 = 889$	M1A1
$10 - 8.89 = 1.11$	M1A1
4 (a) 9	A1
(b) title and labels	A1
correct bars (A1 for 3 correct)	A2
(c) Yes because no-one chose a girl's sport eg netball or rounders etc or No because girls play some of these sports or No because this is only 2 classes, more information needed	A1
5 (a) 5	A1
(b) 6	A1
6 (a) 36	MA1
(b) 0.045	MA1
(c) (i) $\frac{35}{200} = \frac{7}{40}$	MA1
(ii) $200 - 80 = 120$	M1
$120 \div 2 = 60$	M1
$60 + 10 = 70$	MA1

7	$6 \times 11.7 = 70.2$	MA1
	$70.2 + 7.8 = 78$	MA1
8	(a) $42 \div 7 = 6$	M1A1
	(b) $2 + 14 = 16$	M1A1
9	(a) $5 \times 6 = 30 + 3 = 33$	MA1
	(b) $51 - 3 = 48$ and $48 \div 6 = 8$	M1A1
10	(a) $12.8 \times 10 \times 4 = 512$	M1A1
	(b) $\sqrt[3]{512} = 8$	M1A1
11	$\frac{20}{100} \times 790 = 158$	M1A1
	$21.75 \times 36 = 783$	MA1
	$158 + 783 = 941$	MA1
	$941 - 790 = 151$	MA1
12	(a) $11x$	MA1
	(b) (i) 6	MA1
	(ii) 5	MA1
13	(a) (i) $8 \times 4 = 32$	MA1
	(ii) $8 \times 8 = 64$	MA1
	(b) $27 \div 6 = 4.5$	M1A1
	(c) $2(6 + 4.5) = 21$	M1A1

14	$1.4 \times 1.20 = 1.68$	MA1
	$2.87 - 1.68 = 1.19$	MA1
	$1.19 \div 0.7 = 1.70$	M1A1

15	$1200 \div 3 = 400$	MA1
	$1200 \times \frac{4}{15} = 320$	MA1
	$1200 - (400 + 320) = 480$	MA1
	$\frac{480}{1200} = \frac{2}{5}$	MA1

Alternative solution

	$1 - \frac{1}{3} - \frac{4}{15}$	MA1
	$\frac{15 - 5 - 4}{15}$	MA1
	$\frac{6}{15}$	A1
	$\frac{2}{5}$	A1

16	$V = 4 \times 5 - 3 \times (2)$	MA1
	$= 20 - 6 = 14$	A1

17	$7 - 3(-1) = 10$	MA1
	$-2 - 7 = -9$ or $2 + 7 = 9$	MA1
	$-9 \div -3 = 3$ or $9 \div 3 = 3$	MA1

18	$180 - 28 = 152$	MA1
	$152 \div 2 = 76$	MA1
	$180 - 76 = 104$	MA1

- 19** Angles are 216° , 18° , 72° and 54° M1A1
 Each sector correctly drawn and labelled MA2
 (MA1 for 2 correctly drawn and labelled or 4 correctly drawn but missing label(s))
- 20** (a) $4.2 - 0.7 = 3.5$ A1
 (b) 2.7 A1
- 21** $\frac{1}{2} \times 2.1 \times 7.2 = 7.56 \text{ m}^2$ M1A1A1(units)
- 22** $12 \times 1.82 = 21.84$ M1A1
- 23** $168 \div 3.5 = 48$ M1A1
- 24** $\frac{20}{100} \times 56 = 11.20$ M1A1
 $56 + 11.20 = 67.20 \div 24 = 2.80$ M1A1
- 25** $258.75 - 250 = 8.75$ MA1
 $\frac{8.75}{250} \times 100 = 3.5$ M1A1
- 26** $6 \times 9.6^2 = 552.96$ M1A1
 $\pi \times 4^2 = 50.27$ MA1
 $552.96 - 50.27 = 502.69$ MA1
- 27** (a) $7x^2 + 3x$ MA1
 (b) $6(3x - 2y)$ MA1

- 28** Correct Venn Diagram labelled $25 - x$, x , $46 - x$ and 15 MA2
 x is intersection (2 sections correctly labelled MA1)
 $(25 - x) + x + (46 - x) + 15 = 70$ or $86 - x = 70$ MA1
 $x = 16$ A1
- 29** $2182 \times 4.725 = \text{£}103.0995$ MA1
 $91 \times 9.48 = \text{£}8.6268$ MA1
 $(103.0995 + 8.6268) \times 0.05 = \text{£}5.586315$ MA1
 $111.7263 + 5.586315 = \text{£}117.31$ MA1