

TRIAL ONE EVALUATION TEST 2019

121/1 MATHEMATICS ALT A

MARKING SCHEME

1. $7 + 3y \times \frac{1}{6} = 7 + \frac{1}{2} - 1s/y$

M,

$1\% = 1\% \bullet 4,$

=

Fra: $\frac{1}{15} \times \frac{1}{3} = \frac{1}{45} = 2\%$

A,

Bills - $\frac{1}{10} \{1 - \frac{1}{2}\} = \frac{1}{10} \times \frac{1}{2} = \frac{1}{20}$

M₁

Remainder - $1 - \{ \frac{1}{4} + \frac{1}{4} + \frac{1}{20} \} = \frac{9}{20}$

M₁

Salary $\rightarrow \frac{20}{9} \times 4500 = 10,000$

A₁

2. Rs. t. %

3. Distance covered by bus = $70 \times 1 = 70 \text{ km}$
 Distance covered by car = $120 \times \frac{1}{2} = 60 \text{ km}$

M

$70 - 60 = 10 \text{ km}$

M₁, A₁

50000 = 8100
 20000 = 2300
 12000 = 1100
 55000 = 8100

M₁

5stHt = %1G0

3S tt 2&0

$$t_2 s t_4 \phi k = i 200$$

$$6 s k t - 6 \backslash \% 0$$

$$7 s - s o 4 0 \quad [y$$

$$s = 7 a 0 \cdot t z b f 0$$

$$s_0 t = 7 z 0] t \% 0 s r = G / \bullet$$

$$(\# 7 2 s) + G r o = 3 5 a 2 0 / - [A,$$

..

ra - 1 - - - s."

J

5 ') (2 -) 0 - t o o

My

2 - φ 1.2
2 ● G
v - 8

~

b) o c a °

&4,

mp

$$C+y = Jo$$

$$(voH +) - (e t ;) = 5f$$

$$\begin{matrix} 7y - ax - sf \\ y - c = 6 \end{matrix}$$

$$y - (o - ?) = \%$$

$$2y = I\%$$

$$y = \& \quad z = 2$$

n

S. = c (, t : t-7 - ' ; ! . 6 -

$$rS = [ssss-9(ss-?)(@s7$$

- 11e'

Jc rap f₀₀₀'

lg R 11.9g X f,p

3+7+9 = 19 - 7.72ha

7/19

→ 60,000

→ $\frac{19}{7} \times 60,000$

= 162,857.14/-

A, a

2

A₁

M₁
M₁

7cm

= $\frac{479200}{10,000}$

M₁

M₁

B₁

$$325 \cdot 10^1 \quad 0.5077 \cdot 10^1$$

$$- 3.077$$

ssrs **[Jass**

B₁

M₁ A₁

$$3.077 \times 0.0118 = 0.036344$$

lo^a

$$3^{2x+2} = 3^5$$

M₁

M₁

$$2x + R = 5$$

$$2x = 3$$

$$x = 1.5$$

11.

$$5 \cdot 3x + 2$$

$$3433$$

$$= 7$$

$$3x < 12$$

$$ax \ 1 \ %$$

1, 2, 3

A₁

8,

B₁

B₁

12.

a) ~~1~~ ~~us~~ dollar \Rightarrow 75.66

$$\frac{15132000}{75.66} = 20,000 \text{ us Dollars}$$

M₁ A₁

b) sds rat. G - It.hiss fad

$$15,133,06 - 15,133,000 \ll 4$$

↑ 12% le ϕ

M₁

A₁

= sk.84 -

lp

$$3c^2 \text{ lct20 } -3x^24 \text{ t-ts'' t20}$$

$$- (3 - \cdot) -5 (-)$$

$$- (-9)(3 - +) \quad [y$$

$$G - = \frac{+}{>> -5}$$

5G

5

15

$$3 \dots f - x \cdot$$

$$3f8 \quad 8 > -3\%$$

$$D = 8 \quad h$$

%.

$$P = -P$$

$$= () - () = (,$$

$$rs| = [er^o \quad \sim$$

$$A$$

3. $\angle ABC = 42^\circ$ (opposite angles in a cyclic quadrilateral)
 $\angle ACB = 96^\circ$ (Base angles of isosceles triangle)

B_1

$B_1 B_1$

~~4x~~ $12x^2 - 16x = 4x(3x - 4)$

M_1

a < wecs

$$\frac{4}{x+5} \rightarrow -\frac{4x}{x+5}$$

A_1

4

$$\log\left(\frac{3x+8}{8}\right) = \log(x-4)$$

M_1

M_1 (Dropping logs)

Q -

$$= \sqrt{50} = 7.071$$

1222

$$7 \text{ a) } \text{slope} = \frac{11-7}{6-4} = 2$$

$$\frac{y-7}{x-4} = 2$$

$$y = 2x - 1$$

$$\text{b) Midpoint } \left(\frac{6+4}{2}, \frac{11+7}{2} \right) = (5, 9)$$

$$\frac{y-9}{x-5} = -\frac{1}{2}$$

$$y-9 = -\frac{1}{2}(x-5)$$

$$y = -\frac{1}{2}x + 11.5$$

$$\text{c) } \frac{y-7}{x-4} = -\frac{1}{2}$$

$$y = -\frac{1}{2}x + 9$$

$$-yf = -5a + 5$$

$$\rightarrow ts = \frac{+<}{3c} = 8, 7-5$$

$$c(6,5)$$

B₁

,

A₁

Mr 6

A₁

M₁

M₁

A₁

18. a i) $\frac{27000}{x}$

ii) $\frac{27000}{x+5}$

bi) $2700 - 2000$

$\frac{Go}{cf6}$

$2700(cs) - 2700x = 0$
 $Ct5)$

$(6x - 300 - 13Se - 0$
 $- 4sx - 225e = 0$

$(+9(+60) =$
 $= 4+5 cl_{ws}$

) 270 **S.**

= ksks: 5fo

) 80K $\frac{27080}{100} - \frac{21G00}{f6}$

+g_o

G00-U4&0 120/•

B₁

&

M₄

M₄

A₇

A

y

19 a

DAE = to ta 30

-- 57.7+ 8

r) Ac = s77f - 1.0%
S ES

A' = & 0 f 6 GL 7 - 28 & DK & .6 < os 100

kp' = (cso + 66G? .3% + 2268 . S

AD = {i5237.1%
- 123.8

iii) - tg - leo 115.+7
Cos.30

Ec 5677% - 677f
{a 45

.est. = 5774+ so + & 0 + 133g + ns + 7] -
- 77.0] % 7 paw
% la }

.19) rlo4
) GIG - 1 - (2.8x3) -

G089IX5

- f₀
- % - s3
7 v1°

M

A₁

M₁

A₇

M₁

jA

M₁

A₇

20 a) Volume of Cylinder = $3.142 \times 1.9 \times 1.9 \times 4$ M,
 $= 45.37$

Vslun% or CS - $3 \left\{ \begin{matrix} +21.7 \\ 819+35 \end{matrix} \right\}$ y

-- $q_3 + 5z$
 $= 54.8 M$
ZZ = $a \cdot 52 t$ 4537 M,

$\times 9$ M,
 A,
 4

(b) circle = $3.0tz \times 19$ 1
 $- 4.3f$

G\«ls, - $Zk = 2r31 + 381 \times t$
 $- k7.15gf$

Cow - $3re > x i < Na$ D
 $-- Ig 7\%5$ A₇

<T **f** - $I \cdot 3\% + \yen7768\yen + t \& 7+5$

e) - $77.8 | 4 \frac{2}{6}$ M, A₇

t = $\frac{587}{2GX2\%} = 81. \dots$

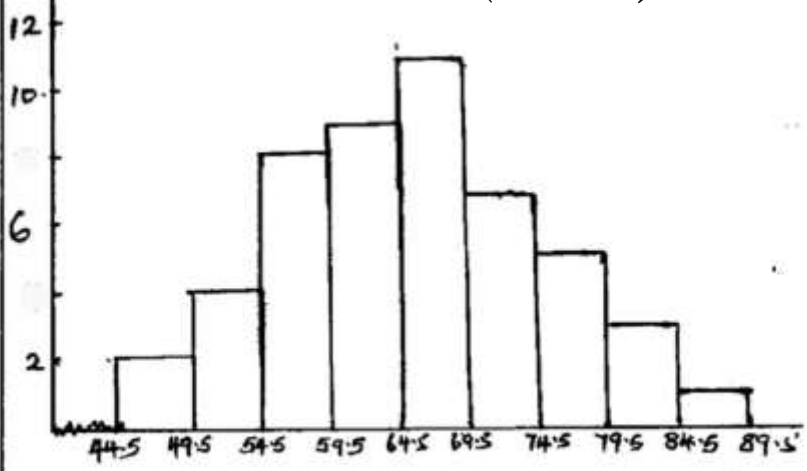
J

classes	2c	f	f	f
ks--+9	7	2	248	2
50-5+	62	H	S%	G
55-5	57	8	lf	23
60-G+	62	9	55	3f
(s-	G7	H	737	J
70-7+	72	7	60c	4C
75-7	77	5	3&6	
g0-Sf	2	3	24%	4
S-8	87	t	.87	50

- 60 '2=3276

$$\frac{3275}{50} = 65.5$$

Aas = Gs + (3°_7°) & 5



9 -cs+at cls 5

[, cad 6u-tr
6, -f <loon

f, CF <slum

A₇

B₁

A₇

B₁ - correct boundaries (44.5-89.5)

B₁ - correct bars.

8

4

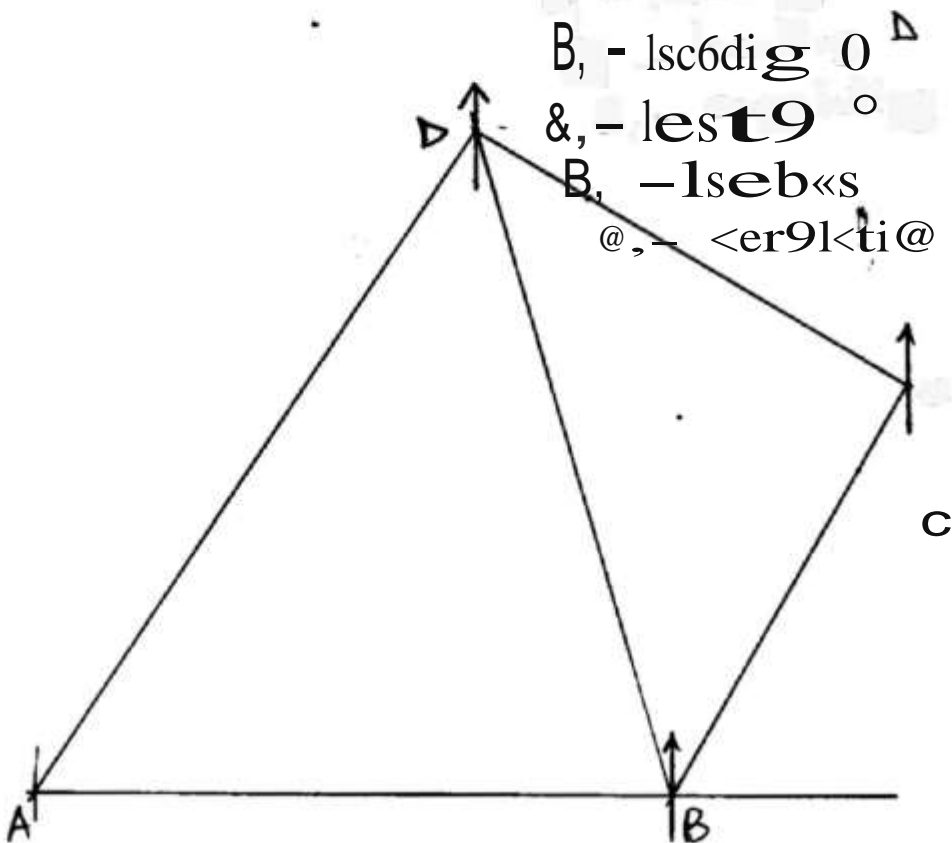
au - - . .

$$\dots - \text{ket} \mathbf{1} \text{ tgle} = \begin{matrix} .73 & -7 > \\ - & 32 \cdot 7 \end{matrix}$$

re 'w. r. r's

23

a)



B, - lsc6dig 0 Δ

&, - lest9 \circ

B, - lseb«s

@, - <er9l<ti@ *d'a*

B₁

b) $9 \text{ } 10 + 3\phi = 21\phi ! |$

W $93 \pm \backslash$ 8

$.31 = 99k.$

$= 33.4 \text{ cm} \times 1$

$= 33.4 \text{ km.}$

1 aask

s e =

) t% s

P f7 +

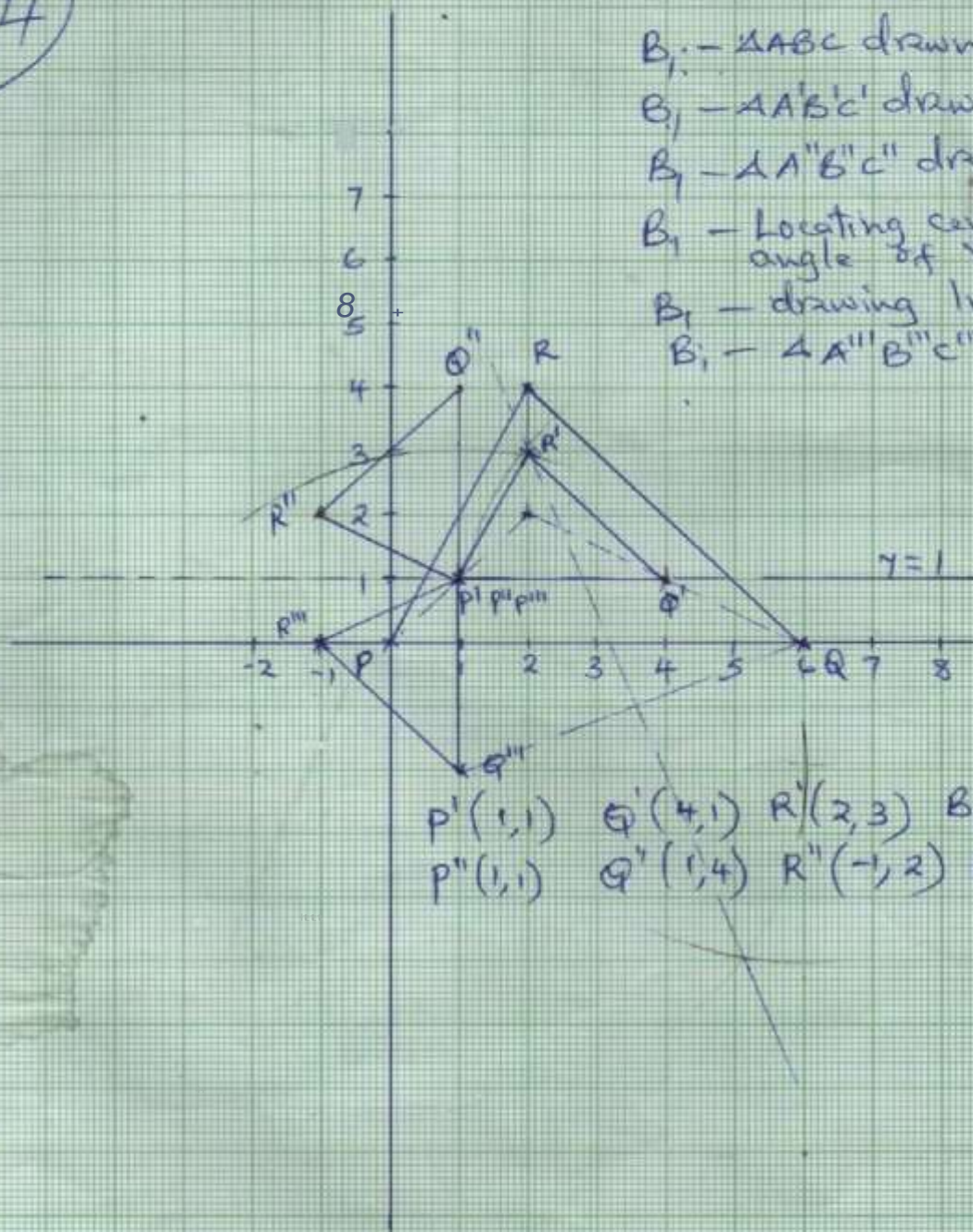
169

t⁸, -

S
T
9
P
A
R
=

24

- B_1 - $\triangle ABC$ drawn
- B_2 - $\triangle A'B'C'$ drawn
- B_3 - $\triangle A''B''C''$ drawn
- B_4 - Locating centre and angle of rotation
- B_5 - drawing line $y=1$
- B_6 - $\triangle A'''B'''C'''$ drawn



$P'(1,1)$ $Q'(4,1)$ $R'(2,3)$ B_1
 $P''(1,1)$ $Q''(1,4)$ $R''(-1,2)$ B_1

