OCR Maths S1

Topic Questions from Papers

Representation of Data

Answers

1	(i)	Median 8 Quartiles 6, 24	B2	3	B1 for each Allow IQR = 24 - 6
	(ii)	Extreme values/skew distort mean or 35 mentioned	B1	1	Accept just "data skewed". Not "anomaly"
	(iii)	Advantage: retains data values Disadv: harder to read (eg) median harder to compare distr's visual comparison harder	B1 B1	2	_ Not "Can be shown on same diag"

(Q2, Jan 2005)

2	(i) Read at 300 or 300.25 and 900 or 900.75 44.5 to 45.5 and 69 to 69.9 IQR 23.5 to 25.4	M1 A1 A1	3	or 44-46 and 68-70 incl. dep A1 Must look back, see method. No wking, ans in range: M1A1A1
	(ii) 0.6 or 60% CF 720 63 to 64	M1 M1 A1	3	Seen or implied Seen or implied 55.5 to 56: SC B1
	(iii) 1200 – 860 = 340	M1 A1	2	Allow 1200 – (850 to 890) 310 to 350
	(iv) 340/1200 0.283^5 = 0.00183	M1 M1dep A1	3	their (iii)/1200 Σ μ [their (iii)/1200]^5 exactly Allow 0.00114 to 0.00212 $\geq$ 2 sfs $^{340}C_5/^{1200}C_5$ M1
	(v) Incorrect reason or ambiguity: B0B0. Otherwise: Too low, or should be 26 or 27 or 2 or 3 higher	B2	2	eg IQR = 55–35 = 20 or IQR = value >27 or new info' implies straight line: B1 or originally, majority in range 35 – 55 are at top of this range: B1
		13		

(Q5, June 2005)

$\div$

$\div$

3 (i)			Correct (149.5)	With 150	Tot = 2000
	Midpoints attempted ≥ 2 classes	M1			
	$\sum xf / 100$ or $\sum xf / \sum f$ attempted ≥ 2 terms	M1			
	x within class, not class width		2720.5/100	2725/100	Allow Ms
	Mean = 27.2 (to 3 sfs) (not 27.25)				
	art 27.2 from fully correct wkng	A1			& poss As
	$\sum x^2 f$ or $\sum x - \bar{x})^2 f \geq 2$ terms	M1			
	$\sqrt{(\sum x^2 f /100 - \bar{x}^2)}$ or $\sqrt{((\sum x - \bar{x})^2 f /100)}$ or $/\sum f$	M1			
	fully corr method, not $\sqrt{\text{neg}}$		27.2	27.25	
		A1 **6**	240702.25	242050	
	= 40.5 to 41.1 (3 sfs)		40.82	40.96	
			allow class widths for 2nd M1 only		
(ii)	Recog LQ in 1st class <u>&</u> UQ in 3rd class	B1			
	Graph: Interp:				
	Attempt 25(.25)th value LQ = 3.0 to 4.3				
	Attempt 75(.75)th value UQ =27 to 29	M1	both nec'y		
	Subtract	M1	dep B1or M1		
	IQR = 23 or 24 or 25	A1 **4**	integer. dep M2		
(iii)(a)	Increase	B1 **1**			
(b)	Increase	B1 **1**	Ignore "probably" etc		
(c)	No change	B1 **1**			
Total		**13**			

(Q7, June 2006)

4 (ia)	W & Y *oe*	B1 **1**	
b	X *oe*	B1 **1**	
ii	Geo probs always decrease or Geo has no upper limit to x or $x \neq 0$	B1 **1**	Geo not fixed no. of values diags have fixed no of trials not Geo has +ve skew
iii	W Bin probs cannot fall then rise or bimodal	B1 B1dep **2**	indep allow Bin probs rise then fall
Total		**5**	

(Q4, Jan 2007)

3500 8x17 5

5 (i)	Med = 2	B1		cao
	LQ = 1 or UQ = 4	M1		or if treat as cont data:
				read cf curve or interp at 25 & 75
	IQR = 3	A1	3	cao
ii	Assume last value = 7 (or eg 7.5 or 8 or 8.5)	B1		stated, & not contradicted in wking
				eg 7-9 or 7,8, 9 Not just in wking
	xf attempted $\geq$ 5 terms	M1		allow "midpts" in xf or x^2f
	2.6 or 3 sf ans that rounds to 2.6	A1		
	x^2f or $(x-m)^2f$ $\geq$ 5 terms	M1		
	$\surd(\ x^2f/100 - m^2)$ or			
	$\surd(\ (x-m)^2f)/100$ fully correct but ft m	M1		
	1.6 or 1.7 or 3 sf ans that rounds to 1.6 or 1.7	A1		dep M3
			6	penalize > 3 sfs only once
iii	Median less affected by extremes or	B1	1	or median is an integer or mean not int.
	outliers etc (NOT anomalies)			or not affected by open-ended interval
				general comment acceptable
iv	Small change in var'n leads to lge change in IQR			
	UQ for W only just 4, hence IQR exaggerated			for Old Moat LQ only just 1 & UQ only just 3
	orig data shows variations are similar	B1	1	oe specific comment essential
v	OM % (or y) decr (as x incr) oe	B1		ranks reversed in OM or not rev in W
	Old Moat	B1	2	NIS
Total		**13**		

(Q8, Jan 2007)

6 (i)	1991	B1 ind		Or fewer in 2001
	100 000 to 110 000	B1 ind	2	Allow digits100 to 110
iia	Median = 29 to 29.9	B1		
	Quartiles 33 to 34, 24.5 to 26	M1		Or one correct quartile and subtr
	= 7.5 to 9.5	A1		NOT from incorrect wking
	140 to 155	M1		×1000, but allow without
	23 to 26.3%	A1		Rnded to 1 dp or integer 73.7 to 77% : SC1
			5	
b	Older	B1		Or 1991 younger
	Median (or ave) greater }			Any two
	% older mothers greater oe}	B1		Or 1991 steeper so more younger: B2
	% younger mothers less oe}	B1	3	NOT mean gter
				Ignore extra
Total		**10**		

(Q5, June 2007)

7 (i)	m = 26.5			B1	
	LQ = 22	or 21.5	or 21.75		
	UQ = 39	40	39.5	M1	M1 for either LQ or UQ
	IQR = 17	18.5	17.75	A1 3	A1 must be consistent LQ, UQ & IQR
ii	Ave or overall or med or "it" similar			B1f	or F med (or ave) higher or F mean less
					or M & F both have most in 20s
	Male spread greater or M more varied oe			B1f 2	or male range greater
					or more younger F or more older M
iii	Med less (or not) affected by extreme(s) or			B1 1	oe; not "anomalies"
	Mean (more) affected by extreme(s)				ignore eg "less accurate"
iv					must consistently decode last or first
	Decode last				
	245/49			M1	
	= 5			A1	
	mean = 205			B1f	200 + "5"
	$\sqrt{(9849/49 - (^{245}/_{49})^2)}$			M1	dep √+ve
	= 13.3 (3sfs) or 4√11			A1	
	sd = 13.3 or 4√11			B1f 6	dep M1 or ans 176; award if not +200
	Decode first				
	245 + 200×49 or 10045		B1		
	$^{10045}/_{49}$		M1		allow $^{445}/_{49}$ or 9.08 seen
	= 205		A1		
	$\Sigma x^2 = 9849+400\times10045-49\times40000$				
	or 2067849		B1		
	$\sqrt{\frac{"\Sigma x^2"}{49}-"\bar{x}^2"}$		M1		dep √+ve
					Σx^2 must be: attempt at Σx^2
					>9849
					not involve 9849^2
					not $(\Sigma x)^2$ eg10045^2, 445^2
					$\bar{x}$ must be decoded attempt, eg 9.08
	= 13.3 or 4√11		A1		
Total				**12**	

8 (i)	$^{25}/_{10}$	M1	Allow $^{25}/_{(9to10)}$ or 2.78: M1
	= 2.5	A1 2	
ii	(19.5, 25)	B1	
	(9.5, 0)	B1 2	Allow (24.5, 47)
			Both reversed: SC B1
			If three given, ignore (24.5, 47)
iii	Don't know exact or specific values of x		Exact data not known
	(or min or max or quartiles or median or		
	whiskers). oe		Allow because data is rounded
	Can only estimate (min or max or		
	quartiles or median or whiskers) oe		
	Can't work out (…..) oe		
	Data is grouped oe	B1 1	
Total		**5**	

9	(i)	68		B1	
		75 – 59		M1	attempt 6th & 18th or 58-60, 74-76 & subtr
		= 16		A1 3	must be from 75 – 59
	(ii)	Unaffected by outliers or extremes		B1 1	NOT: … by anomalies or freaks
		(allow less affected by outliers)			easier to calculate
		sd can be skewed by one value physicsandmathstutor.com			
	(iii)	Shows each data item, retains orig data			NOT: shows freqs
		can see how many data items			shows results more clearly
		can find (or easier to read) mode or modal class			B&W does not show freqs
		can find (or easier to read) frequs		B1	
		can find mean			
					NOT: B&W easier to compare
		Harder to read med (or Qs or IQR)			B&W shows spread or variance or skew
		Doesn't show med (or Qs or IQR)			B&W shows highest & lowest
		B&W shows med (or Qs or IQR)		B1 2	
		B&W easier to compare meds			Assume in order: Adv, Disadv, unless told
					Allow disadv of B&W for adv of S&L
					& vice versa
					Ignore extras
	(iv)	m = 68.1 NOT by restart		B1	
		sd = 9.7 (or same) NOT by restart		B1 2	Restart mean or mean & sd:
					68.1 or 68.087 & 9.7 or 9.73 B1 only
Total				**8**	

(Q5, Jan 2009)

10	(i)	(a)	Use of correct midpts		B1	11,14,18,25.5
			$\Sigma lf \div \Sigma f$ $(= 706 \div 40)$		M1	l within class, $\geq$ three lf seen
			= 17.65		A1	[17.575,17.7]
			$\Sigma l^2 f$ $(= 13050.5)$		M1	$\geq$ three $l^2 f$ seen
			$\sqrt{\dfrac{"13050.5"}{40} - "17.65"^2}$ $(= \sqrt{14.74})$		M1	$\div 40$,-mean^2,$\surd$.Dep>0.
						$\sum(l-17.65)^2 f$, at least 3 M1,$\div 40,\surd$
			= 3.84 (3 sfs)		A1 6	M1,3.84 A1.
						$\div 4 \Rightarrow$ max B1M0A0M1M0A0
		(b)	mid pts used or data grouped			not "orig values were guesses"
			or exact values unknown oe		B1 1	
	(ii)		$20 \div 5$		M1	condone $20 \div [4,5]$ or ans 5
			= 4		A1 2	
	(iii)		20.5th value requ'd <u>and</u>			condone 20th
			1st two classes contain 14 values		M1	oe
			16 – 20		B1 2	or third class oe
	(iv)	(a)	increase		B1 1	
		(b)	decrease		B1 1	
	Total				**[13]**	

(Q2, Jan 2010)

| 11 | (i) | Attempt find total area, (even if includes a^2) eg
$20×1.4a+10×3.4a+6×4.6a+4×2.6a+10×3a+30a$
or $28a+34a+27.6a+10.4a+30a+30a$
or $20×1.4+10×3.4+6×4.6+4×2.6+10×3+30$
or $28+34+27.6+10.4+30+30$
or $7×20+17×10+23×6 + ……$
or $160a$ or 160 or 16 or $16a$ <u>(if area, not ht)</u>

$800 ÷$ their total (must involve area, not ht)
eg $160a = 800$, $800÷$
$a = 5$

"Box" $⇒$ area. "Square" possibly $⇒$ area | M1

M1dep

A1 | eg tot <u>area</u> = 16cm² or 16a   M1
$800/16$ (= 50)   M1
$a × 10 = 50$ $a = 5$ A1

eg tot area = 400 (sqs)   M1
$800/400$ (= 2)   M1
$1.4a ×20 = 70 × 2$ $a = 5$ A1

Correct ans with nothing incorrect seen:
M1M1A1

But where the correct answer clearly results
from incorrect working, eg $a = 800/167 = 4.8$
rounded to $a = 5$, then max M1M1A0

[3] | Trial methods, eg:

$a = 5$ gives $7×20+17×10+23×6 + ….$
= 800   M1
But no of apples = 800   M1
Hence $a = 5$ A1

$a = 10$ gives $14×20+34×10+46×6+. =$
1600   M1
But no of apples = 800   M1
Hence $a = 5$ A1

NOT "1cm = 5" (because may just
come from counting squares)
<u>NB total ht = 16cm so if 16 seen, must
clearly be area eg 800/16 may score 0
or 2</u> |
| 6 | (ii) | $\frac{1}{2}$ total area or $\frac{1}{2}$ total no. apples ft their 6(i)

Median is in 50 – 56 class stated or implied

Calculate (approx) $\frac{2}{3}$ of way along class
or $\frac{1}{3}$ of way from top of class

Median = 53.9 to 54   Not eg 54.2 | B1f

M1

M1

A1

[4] |

Correct ans with nothing incorrect seen:
M1M1A1

But where the correct answer clearly results
from incorrect working, eg $a = 800/167 = 4.8$
rounded to $a = 5$, then max M1M1A0 | Examples of correct methods:

$400 – (7×20+17×10)$ (= 90)
$50 + \frac{"90"}{23×6} × 6$ = 54

$200 – (70+85)$ (= 45)
$50 + \frac{"45"}{69} × 6$ = 54

$400.5 – (7×20+17×10)$ (= 90.5)
$50 + \frac{"90.5"}{23×6} × 6$ = 54

Use of LB = 49.5:
eg median = 49.5 +appr$\frac{2}{3}$ × 6 = 53.4
B1M1A1A0 |

(Q6, Jan 2013)

12 (i)	590	B1 1	Allow approximately 590
ii	Graph horiz (for $\geq$ 55 mks) oe	B1 1	or levels off, or grad = 0, grad not increase Allow line not rise, goes flat, plateaus, stops increasing, not increase, doesn't move
iii	39 to 41	B1 1	
iv	Attempt read cf at 26 or 27 Double & attempt read x Max C = 29 to 31.5	M1 M1 A1 3	eg 26 mks → 150th 27 mks → 180th eg read at cf = 300 or 360 Indep of first M1 May be implied by ans Answer within range, no working, M1M1A1 32 without working, sc B1
v	LQ = 25.5-26.5 or UQ = 34-35.5 IQR = 8-10 (German) more spread	M1 A1 B1ft 3	M1 for one correct quartile dep $\geq$ 1 correct quartile or no working or less consistent, less uniform, less similar, more varied, more variable, greater variance, more spaced apart, further apart ft their IQR; must be consistent with IQR Correct comment with no working: M0A0B1
Total		**9**	

(Q1, June 2010)

13 (i)	38	B1	Reversed: B1B0	
	61	B1 2		
ii	Paper 2	B1	Indep of reason	Ans "Paper 1", ignore reason: B0B0 unless reversed in (i)
				More scored higher mks
	Higher median or curve is to right	B1dep 2	or similar	Highest & lowest mks are higher
			Higher average or mean or midpoint	For each cf, the corresponding mark is higher in p2.
			Paper 2: half $\leq$ 61, cf paper 1: half $\leq$ 38	None get 0-10
				Some get 100
			Paper 1: more students scored lower	Eg 25 scored > 69 in p1, cf 65 scored > 69 in p2
			marks (or lower than eg 40)	
				NOT Marks are higher NOT marks seem higher
				NOT everyone gets higher mks
				NOT Curve steeper
				Ignore irrelevant or incorrect
				SC: If reversed in (i): (ii) p1 because median higher B1B1ft
iii	55, 25	M1	M1 one pair of quartiles	Allow 55±1, 25±1 Not necessarily subtracted
	73, 46			73±1, 46±1
	Paper 1 IQR = 30	A1		30±1
	Paper 2 IQR = 27	A1		27±1
	Suggestion correct or p2 less varied	B1f indep	p2 more consistent or less spread out	p1 more varied or more spread out or less consistent
			Allow "p2 has smaller range (or	Little difference or similarly varied
			smaller variance") if IQRs found	
				NOT p2 IQR smaller than p1 unless also says less varied oe
		4	"It" is less varied: assume p2: B1	
				If quartiles found but not IQRs: max M1A0A0B1
				If no quartiles calculated can still score B1
				Steeper curve alone M0A0A0B0
			physicsandmathstutor.com	
				If IQRs wrong, with p1 < p2, ft "suggestion wrong": B1f
				Ignore irrelevant or incorrect
iv	37 ($\pm$ 3)	B2 2	B1 for 163 ($\pm$ 3)	Not necessarily integer.
				B1 for 78-80 mks for min grade A on p2
				SC: ans 105 – 110: B1 (from p1 10 mks hier instead of lower)
v	37.5	B1	cao	NOT eg 37.51
	28.2	B1 2	or sd the same	Ignore all working
Total		**12**		

(Q1, Jan 2011)

14 (i)	Method is either: Just $4 \div 3$ or $\frac{4}{3}$ or: Use of ratio of correct frequencies AND ratio of widths (correct or 4 and 2)			
	$5.6 \times \frac{4}{28} \times \frac{5}{3}$ or $0.8 \times \frac{5}{3}$ or $(5.6 \div \frac{28}{5}) \times \frac{4}{3}$ or $\frac{4}{3}$ or $4 \div 3$ oe $= 1\frac{1}{3}$ or $\frac{4}{3}$ or 1.33 (3 sf) oe	M2 A1 3	M1 for $5.6 \times \frac{4}{28} \times \frac{4}{2}$ or $0.8 \times \frac{4}{2}$ or $(5.6 \div \frac{28}{4}) \times \frac{4}{2}$ or 0.8×2 oe (= 1.6) No wking, ans 1.3: M2A0 Ans 1.6: Check wking but probably M1M0A0	Correct calc'n using 5.6, 28, 4, 5, 3 oe: M2 Correct calc'n using 5.6, 28, 4, 4, 2 oe: M1 ie fully correct method: M2 or: incorrect class widths, otherwise correct method: M1 $\frac{4}{3}$ correctly obtained (or no wking) then further incorrect: M1M0A0 Use of ratio of widths OR freqs but not both: M0 eg $5.6 \times \frac{4}{28} (= 0.8)$ or $5.6 \times \frac{3}{5} (= 3.36)$: M0 $\frac{4}{2} = 2$: M0M0A0
ii	25 or 26 or 25.5 Med is 21st (or 22nd or 21.5^{th}) in 31-35 class or "$25 - 4$" Can be implied by calc'n Med > 33 or "more than"	B1 B1 B1 3	or 25 & 26 or med in last ≈ 7 in class or $33 \approx 14^{th}$ in class or $33 \approx 18^{th}$ in whole set Can be implied by diagram indep physicsandmathstutor.com	May be implied, eg by 21 or 22 or 21.5 Calc'ns need not be correct but need to contain relevant figures for gaining B1B1 The "$\approx$" sign means ± 2 <u>Alternative Method</u>: $33 \approx 18^{th}$ value B1 More values above 33 than below oe B1 Med > 33 B1 Ignore comment on skew NB Use EITHER the main method OR the <u>Alternative Method</u> (above), not a mixture of the two. Choose the method that gives most marks.

iii	≥ 3 mid-pts attempted
	 $\Sigma fx \div 50$ attempted $(= \frac{1819}{50})$
	 $= 36.38$ or 36.4 (3 sf)
	
	 Σfx^2 attempted $(= 68055.5)$
	
	 $\sqrt{\frac{68055.5}{50} - (\frac{1819}{50})^2}$ or $\sqrt{1361.11 - 36.38^2}$
	                            $(= \sqrt{37.6056})$
	
	 $= 6.13$ (3 sfs)
	
	 Alt for variance:
	 $\Sigma f(x - \bar{x})^2$ $(= 1880.28)$ M1
	 $\sqrt{\frac{1880.28}{50}}$ M1
	 $= 6.13$ (3 sf) A1
		M1
		 M1
		 A1
		
		 M1
		
		 M1
		
		 A1 6
			seen or implied
			 ≥ 3 terms.
			 or 36 with correct working
			
			 ≥ 3 terms.
			
			 completely correct method except midpts & ft their mean, dep not $\sqrt{}$(neg)
				Not nec'y correct values (29, 33, 40.5, 53)
				
				 Allow on boundaries. Not class widths
				
				 Allow on boundaries. Not class widths
				         (3364, 30492, 22963.5, 11236)
				
				 Allow class widths for this mark only
				 NB mark is not just for "$- mean^2$", unlike q5(iii)
				
				 $\Sigma(fx)^2$: M0M0A0
				
				 If no wking for Σfx^2, check using their x and f
				
				 If no wking or unclear wking:
				       full mks for each correct ans
				       for incorrect ans:
				            $35.8 \leq \mu \leq 36.9$ M0M1A0
				            $6.0 \leq sd \leq 6.25$ M1M0A0

iv	(a) Decrease (b) Increase (c) Same (d) Same	B1B1 B1B1 4	Ignore other, eg "slightly" or "probably"	Ignore any comments or reasons, even if incorrect
Total		**16**		

(Q4, June 2011)

15	(i)	(a)	$(\frac{6}{3} =) 2$	B1 [1]	$(\frac{6}{3} \times 3 =) 2$	
	(i)	(b)	$^2/_6 \times 2$	M1	Allow $^2/_5 \times 2$ or ans 0.8 for M1	Can be implied, eg $\frac{1}{3} = 0.3$, ans 0.6: M1A0
			$= ^2/_3$ oe or 0.667 or 0.67 or 0.7	A1[2]		Allow 0.66 or 0.666
	(ii)		(3.5, 6) (0.5, 0) or (6.5, 15)	B1 B1 [2]	Ignore incorrect	(6, 3.5) AND (15, 6.5): B1
	(iii)	(a)	$\frac{\Sigma xf}{21}$	M1	Allow x within classes, incl end pts	≥ 2 non-zero terms correct ft their x
			$= 5.43$ (3 sf) or $\frac{114}{21}$ or $\frac{38}{7}$ oe	A1	then ÷5: M0A0	
			$\frac{\Sigma x^2 f}{21}$ or $\frac{817.5}{21}$ or 38.9…	M1	Allow x within class, incl end pt ÷5: M0	≥ 2 non-zero terms correct ft their x Calc 4 values of $(x - \bar{x})^2$ or $(x - \bar{x})^2 f$ or (11.8, 0.184, 6.61, 50) or (70.5, 1.65, 26.4, 100) or 199 M1
			– "5.43"^{2} or $= 9.46$ or 9.4592….	M1	dep +ve result; done before √; not $-(\bar{x}^2 \div …)$	$\frac{\Sigma (x-\bar{x})^2 f}{21}$ fully correct method M1
			$(\sqrt{9.4592….})$ $= 3.08$ (3 sfs)	A1 [5]		
	(iii)	(b)	Actual values or exact hours unknown oe Don't have raw data. oe or measured to nearest hour oe	B1 [1]	or Data given in classes or grouped oe or Data evenly distributed in classes oe	Mid-points or medians or averages of class boundaries used oe

(Q5, Jan 2012)

16	(i)		23	B1 [1]	Allow 22.5	NOT 22 (ie 3.5th no) Correct ans is the 4th or 3.75th no.
	(ii)		0 0	B1 B1 [2]	B1 for 30, 30	
	(iii)		38 or 40 39 40.75	B2 [2]	B1 for 38 or 39 seen B2 for 38 & 39 seen alone, not in a range Mixture, eg 38, 40.75 B1B0 3/8 and 3/9 (both): B1B0 8 and 9(both): B1B0 40, 40.75: similar scheme as for 38, 39	eg 38, 38.5, 39 B1B0 (ie UQ = $^3/_4 \times 14 = 10.5^{th}$ no.) 'Between 39 & 46' B1B0 $38 \leq$ any letter < 40 B1B0 SC 42, 42.5 only B1B0 (ie UQ = 11.5th no.) Correct ans are the poss 11th or 11.25th nos
	(iv)		Shows all the data or you can see all the values oe You can see the actual/exact/indiv numbers/values/results No data is lost oe Shows the shape of the distribution oe Can perform calculations of your choice (eg mean) Shows which group (or class, NOT value) has the highest frequency (or is the mode) oe	B1 [1]	any implication of <u>all</u> the data or the <u>actual</u> numbers/values/results or similar eg Can compare each indiv result Easier to see the numbers eg can <u>find</u> frequencies No mks for ans to (v) given in (iv) unless labelled as (v)	NOT Shows the spread/skew/trend Any comment on skew You can <u>see</u> the actual frequ's Easier to compare sets of data Shows more info or more data Easier to read off the data Ignore all other

	(v)		Shows the median or it's easier to see the median
			     (or quartiles or IQR)
			 It can measure the middle 50% easily
				B1 [1]	eg Shows mean and quartiles B1
					     Shows range and median B1
					
					 No mks for ans to (v) given in (iv) unless labelled as (v)
					
					 Ignore all other
						NOT
						 Shows the spread/skew/trend
						 Can see data in diag form
						 Shows max or min or range
						 Easier to compare sets of data
						 Not affected by outliers
						 Easy to see outliers
						 Shows s.d. or shows mean
						 Can see important data items/measures

(Q3, June 2012)