

٦ إذا كانت: د (س) = س^٢ فإن: د (٢) =

- Ⓐ د (-٤) Ⓑ د (٤) Ⓒ د (صفر) Ⓓ د (-٢)

٧ العنصر المحايد الضربي في مجموعة الأعداد الحقيقية هو

- Ⓐ ١- Ⓑ صفر Ⓒ ١ Ⓓ ٢

٨ إذا كان: $\frac{1}{p} = \frac{q}{r}$ فإن:

- Ⓐ $ar = bp$ Ⓑ $ar = bp$ Ⓒ $ar = bp$ Ⓓ $ar = bp$

٩ إذا تساوت مجموعة من القيم فإن التثقت لها يساوي

- Ⓐ ١- Ⓑ صفر Ⓒ ١ Ⓓ ٢

فأوجد قيمة ك

$$\frac{س + ٤ ص - ع}{٢ ك} = \frac{ع}{٤} = \frac{ص}{٢} = \frac{س}{٢} \quad (١٤)$$

٣

(١٥) إذا كانت $س = \{٢, ٥, ٧\}$ ، $ص = \{٢, ٣, ٥\}$ ، $ع$ علاقة من $س$ إلى $ص$
حيث $أ ع ب$ تعني أن " $ب = أ - ٢$ " لكل $أ \in س$ ، $ب \in ص$
أولاً: اكتب بيان $ع$
ثانياً: هل $ع$ دالة أم لا؟

٣

المجموعة الثانية: أجب عن جميع الأسئلة التالية موضحاً خطوات الحل

(١٠) إذا كان: $\frac{2}{4} = \frac{2+13}{1-6}$ فأوجد قيمة النسبة: $\frac{1}{b}$

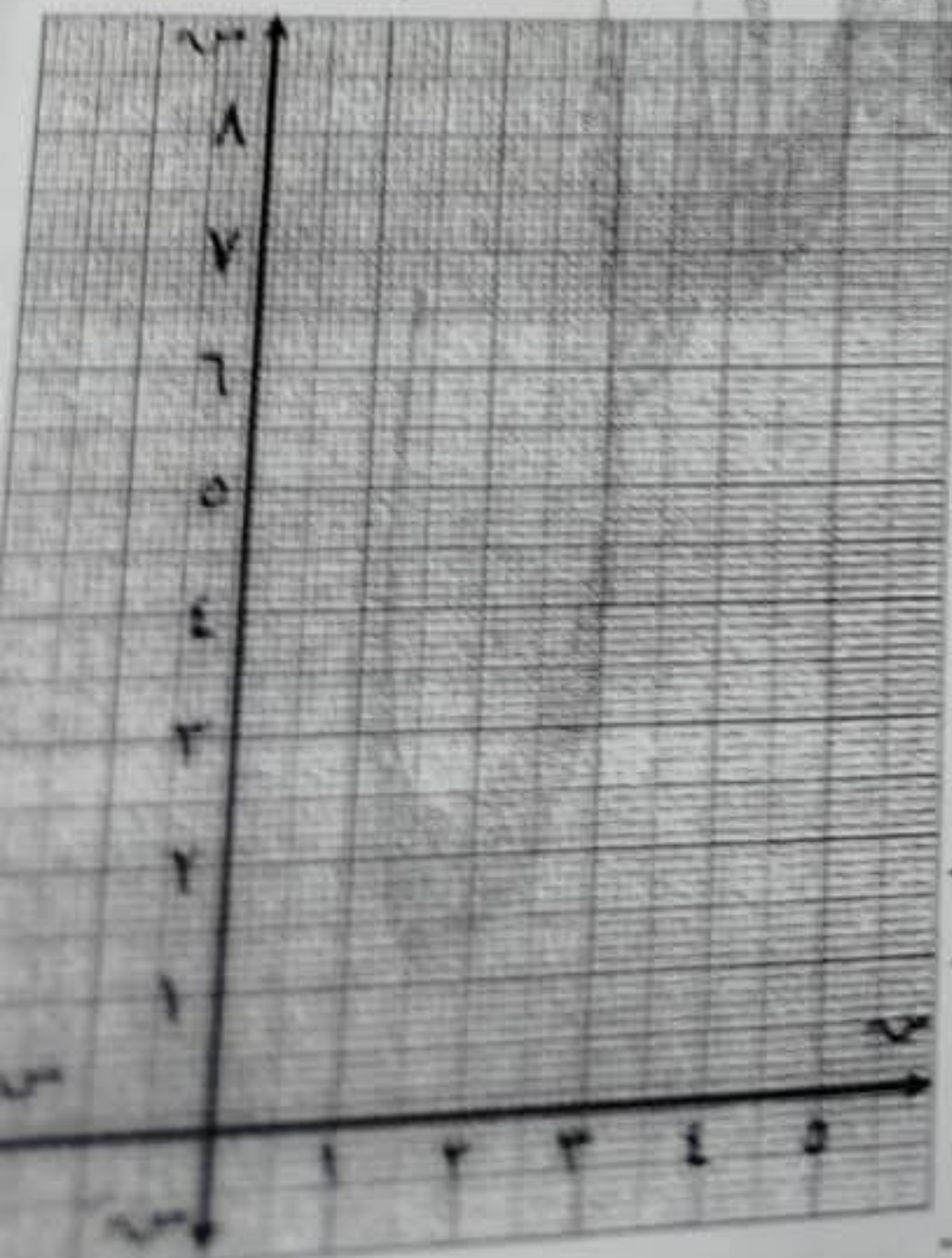
٣

(١١) مثل بيانياً منحنى الدالة $d: d = (s) = (s-2)^2 + 3$

متخذاً $s \in [0, 4]$ ومن الرسم استنتج:

أولاً: إحداثي نقطة رأس منحنى الدالة

ثانياً: القيمة الصغرى للدالة



بقية الأسئلة في الصفحات التالية

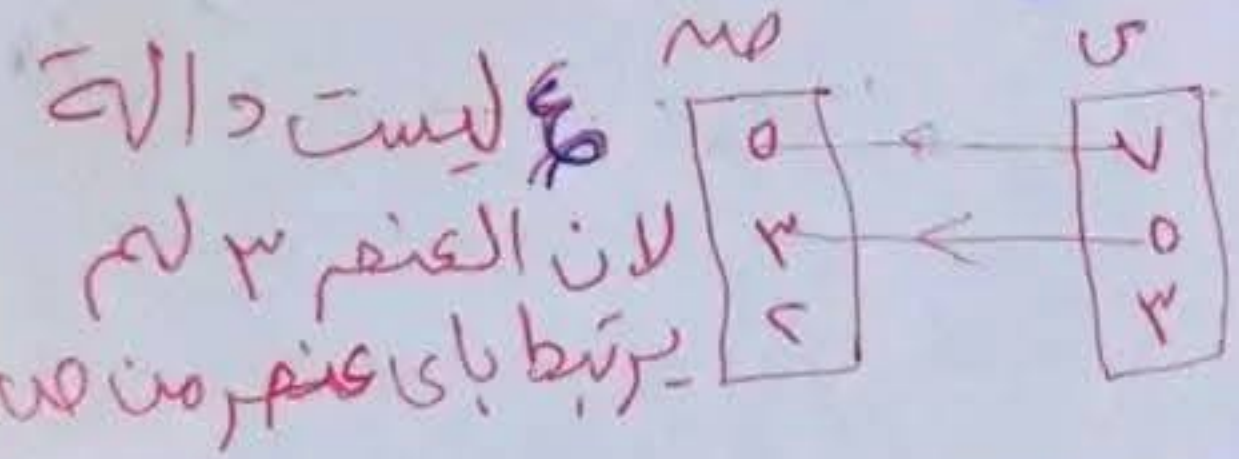
(١٦) إذا كانت : ب وسطاً متناسباً بين ١ ، ج فأثبت أن :

$$\frac{ب}{ج} = \frac{١}{ج}$$

انتهت الأسئلة
(مع خالص الدعاء بالتوفيق)

مسودة

السؤال الثاني: إذا كان $u = 3$ و $v = 5$ و $p = 6$ و $q = 7$ و $r = 8$ و $s = 9$ و $t = 10$ و $u = 11$ و $v = 12$ و $w = 13$ و $x = 14$ و $y = 15$ و $z = 16$ و $a = 17$ و $b = 18$ و $c = 19$ و $d = 20$ و $e = 21$ و $f = 22$ و $g = 23$ و $h = 24$ و $i = 25$ و $j = 26$ و $k = 27$ و $l = 28$ و $m = 29$ و $n = 30$ و $o = 31$ و $p = 32$ و $q = 33$ و $r = 34$ و $s = 35$ و $t = 36$ و $u = 37$ و $v = 38$ و $w = 39$ و $x = 40$ و $y = 41$ و $z = 42$ و $a = 43$ و $b = 44$ و $c = 45$ و $d = 46$ و $e = 47$ و $f = 48$ و $g = 49$ و $h = 50$ و $i = 51$ و $j = 52$ و $k = 53$ و $l = 54$ و $m = 55$ و $n = 56$ و $o = 57$ و $p = 58$ و $q = 59$ و $r = 60$ و $s = 61$ و $t = 62$ و $u = 63$ و $v = 64$ و $w = 65$ و $x = 66$ و $y = 67$ و $z = 68$ و $a = 69$ و $b = 70$ و $c = 71$ و $d = 72$ و $e = 73$ و $f = 74$ و $g = 75$ و $h = 76$ و $i = 77$ و $j = 78$ و $k = 79$ و $l = 80$ و $m = 81$ و $n = 82$ و $o = 83$ و $p = 84$ و $q = 85$ و $r = 86$ و $s = 87$ و $t = 88$ و $u = 89$ و $v = 90$ و $w = 91$ و $x = 92$ و $y = 93$ و $z = 94$ و $a = 95$ و $b = 96$ و $c = 97$ و $d = 98$ و $e = 99$ و $f = 100$



الكل \downarrow

بيان $u = \{ (3, 6), (5, 7) \}$

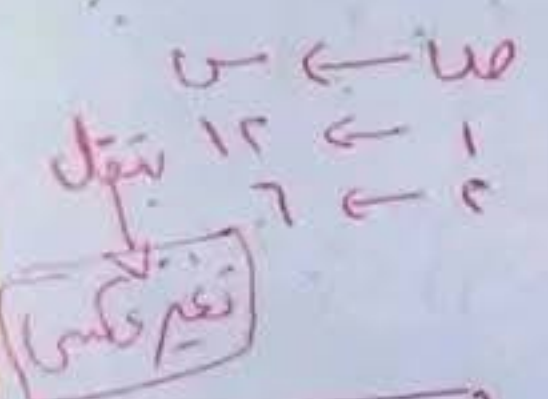
u	v
12	1
7	2
4	3

السؤال الثالث: من بيان الجدول المقابل

(1) حدد نوع التغير بين u و v (طردى أم عكسى)

(2) حدد العلاقة بين u و v

(3) اوجد قيمة u عند $v = 4$



الكل \downarrow

(1) $u \propto \frac{1}{v}$ ← تغير عكسى

(2) $u = \frac{v}{5}$ ← العلاقة

(3) $u = \frac{12}{5} = 2.4$ ←

العلاقة: $u = \frac{v}{5}$ ←

$u = \frac{12}{5} = 2.4$ ←

$u = \frac{12}{5} = 2.4$ ←

السؤال الرابع: إذا كان u و v متناسبين $u = kv$ و $u = 12$ و $v = 5$ و $u = 20$ و $v = 10$ و $u = 30$ و $v = 15$ و $u = 40$ و $v = 20$ و $u = 50$ و $v = 25$ و $u = 60$ و $v = 30$ و $u = 70$ و $v = 35$ و $u = 80$ و $v = 40$ و $u = 90$ و $v = 45$ و $u = 100$ و $v = 50$ و $u = 110$ و $v = 55$ و $u = 120$ و $v = 60$ و $u = 130$ و $v = 65$ و $u = 140$ و $v = 70$ و $u = 150$ و $v = 75$ و $u = 160$ و $v = 80$ و $u = 170$ و $v = 85$ و $u = 180$ و $v = 90$ و $u = 190$ و $v = 95$ و $u = 200$ و $v = 100$

السؤال السادس: احسب الانحراف المعياري للقيم: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

الوسط = $\frac{1+2+3+4+5+6+7+8+9+10}{10} = 5.5$

الانحراف المعياري = $\sqrt{\frac{1^2+2^2+3^2+4^2+5^2+6^2+7^2+8^2+9^2+10^2}{10} - 5.5^2} = \sqrt{3.5} \approx 1.87$

السؤال الخامس: إذا كانت $u = 10$ و $v = 20$ و $w = 30$ و $x = 40$ و $y = 50$ و $z = 60$ و $a = 70$ و $b = 80$ و $c = 90$ و $d = 100$ و $e = 110$ و $f = 120$ و $g = 130$ و $h = 140$ و $i = 150$ و $j = 160$ و $k = 170$ و $l = 180$ و $m = 190$ و $n = 200$ و $o = 210$ و $p = 220$ و $q = 230$ و $r = 240$ و $s = 250$ و $t = 260$ و $u = 270$ و $v = 280$ و $w = 290$ و $x = 300$ و $y = 310$ و $z = 320$ و $a = 330$ و $b = 340$ و $c = 350$ و $d = 360$ و $e = 370$ و $f = 380$ و $g = 390$ و $h = 400$ و $i = 410$ و $j = 420$ و $k = 430$ و $l = 440$ و $m = 450$ و $n = 460$ و $o = 470$ و $p = 480$ و $q = 490$ و $r = 500$

السؤال السابع: $u = 10$ و $v = 20$ و $w = 30$ و $x = 40$ و $y = 50$ و $z = 60$ و $a = 70$ و $b = 80$ و $c = 90$ و $d = 100$ و $e = 110$ و $f = 120$ و $g = 130$ و $h = 140$ و $i = 150$ و $j = 160$ و $k = 170$ و $l = 180$ و $m = 190$ و $n = 200$ و $o = 210$ و $p = 220$ و $q = 230$ و $r = 240$ و $s = 250$ و $t = 260$ و $u = 270$ و $v = 280$ و $w = 290$ و $x = 300$ و $y = 310$ و $z = 320$ و $a = 330$ و $b = 340$ و $c = 350$ و $d = 360$ و $e = 370$ و $f = 380$ و $g = 390$ و $h = 400$ و $i = 410$ و $j = 420$ و $k = 430$ و $l = 440$ و $m = 450$ و $n = 460$ و $o = 470$ و $p = 480$ و $q = 490$ و $r = 500$

u	0	1	2	3	4
v	7	4	3	2	1

$\frac{2}{3} = \frac{10}{15} = \frac{20}{30} = \frac{40}{60} = \frac{80}{120} = \frac{160}{240} = \frac{320}{480} = \frac{640}{960} = \frac{1280}{1920} = \frac{2560}{3840} = \frac{5120}{7680} = \frac{10240}{15360} = \frac{20480}{30720} = \frac{40960}{61440} = \frac{81920}{122880} = \frac{163840}{245760} = \frac{327680}{491520} = \frac{655360}{983040} = \frac{1310720}{1966080} = \frac{2621440}{3932160} = \frac{5242880}{7864320} = \frac{10485760}{15728640} = \frac{20971520}{31457280} = \frac{41943040}{62914560} = \frac{83886080}{125829120} = \frac{167772160}{251658240} = \frac{335544320}{503316480} = \frac{671088640}{1006632960} = \frac{1342177280}{2013265920} = \frac{2684354560}{4026531840} = \frac{5368709120}{8053063680} = \frac{10737418240}{16106127360} = \frac{21474836480}{32212254720} = \frac{42949672960}{64424509440} = \frac{85899345920}{128849018880} = \frac{171798691840}{257698037760} = \frac{343597383680}{515396075520} = \frac{687194767360}{1030792151040} = 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