هيكل مراجعة أسئلة اختيار من متعدد في ضرب ثنائيات الحدود (محلول)

تم تحميل هذا الملف من موقع المناهج الإماراتية

موقع المناهج ⇦ المناهج الإماراتية ⇦ الصف العاشر العام ⇦ رياضيات ⇦ الفصل الأول ⇦ ملفات متنوعة ⇦ الملف

تاريخ إضافة الملف على موقع المناهج: 2026-11-06 15:28:00

المزيد من مادة رياضيات: ملفات ا كتب للمعلم ا كتب للطالب ا اختبارات الكترونية ا اختبارات ا حلول ا عروض بوربوينت ا أوراق عمل منهج انجليزي ا ملخصات وتقارير ا مذكرات وبنوك ا الامتحان النهائي ا للمدرس

إعداد: Aghead

التواصل الاجتماعي بحسب الصف العاشر العام

صفحة المناهج الإماراتية على فيسبوك					
المواد على تلغرام	التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات	

المزيد من الملفات بحسب الصف العاشر العام والمادة رياضيات في الفصل الأول

1	تجميع للهيكل مطابق لوصف الهيكل 2027 - منهج عربي
2	الهيكل الوزاري المعتمد 2027 ريفيل
3	هيكل اختبار نهاية الفصل
4	الهيكل الوزاري المعتمد 2027
5	مراجعة التقويم التكويني لهيكل 2027

تحميل تطبيق المناهج للهواتف الذكية	
تطبيق المناهج على Store App (آبل)	تطبيق المناهج على Play Google (أندرويد)

وزارة التربية والتعليم
MINISTRY OF EDUCATION



هيكل رياضيات الصف العاشر عام ريفيل
الفصل الأول للعام 2026-2027

اِحجِزْ مَكانَكَ وَاستَعِدَّ لِلْاِمتِحَانِ بِثِقَةٍ كَامِلَةٍ

احصل على الشرح الكامل للصف من خلال:

التواصل والحجز عبر الـ Whatsapp
اضغط على الرقم: 0566991363



للانتقال إلى المواقع
اضغط هنا

للتواصل والحجز

شرح الدروس

انضم للقناة

Mr. Aghead

MR. AGHEAD 0566991363

يمكنكم الحصول على



احصل على الشرح الكامل للصف من خلال:
التواصل والحجز عبر الـ Whatsapp
اضغط على الرقم: 0566991363

لا تتردد في التواصل
معنا قم بمسح الـ QR

Q1: multiply binomials by using the foil method

page: 649, (1-6)

MCQ

Find each product.

1. $(3c - 5)(c + 3)$

A) $3c^2 - 4c - 15$
B) $3c^2 + 4c - 15$
C) $3c^2 + 14c - 15$
D) $3c^2 + 4c + 15$

D	C	B	A

2. $(g + 10)(2g - 5)$

A) $2g^2 + 15g - 50$
B) $2g^2 - 15g - 50$
C) $2g^2 + 5g - 50$
D) $2g^2 + 15g + 50$

D	C	B	A

MR. AGHEAD 0566991363

3. $(6a + 5)(5a + 3)$

A) $30a^2 + 18a + 15$
B) $30a^2 + 33a + 15$
C) $30a^2 + 43a + 15$
D) $11a^2 + 43a + 8$

D	C	B	A

4. $(4x + 1)(6x + 3)$

A) $24x^2 + 18x + 3$
B) $24x^2 + 12x + 3$
C) $24x^2 - 18x + 3$
D) $24x^2 + 18x - 3$

D	C	B	A

5. $(5y - 4)(3y - 1)$

A) $15y^2 + 17y + 4$
B) $15y^2 - 17y - 4$
C) $15y^2 - 7y + 4$
D) $15y^2 - 17y + 4$

D	C	B	A

6. $(6d - 5)(4d - 7)$

A) $24d^2 - 62d - 35$
B) $24d^2 - 62d + 35$
C) $24d^2 + 62d + 35$
D) $24d^2 - 22d + 35$

D	C	B	A

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

Q2: find squares of sums and differnces

page: 653,655,657, learn + (1-6)

MCQ

Learn Square of a Sum

Key Concept • Square of a Sum

Words The square of $a + b$ is the square of a plus twice the product of a and b plus the square of b.

According to the "Square of a Sum" pattern, the expansion of $(a+b)^2$ is equal to:

A) $a^2 + b^2$

B) $a^2 + ab + b^2$

C) $a^2 + 2ab + b^2$

D) $2a + 2b$

D	C	B	A

Find the product of $(x+3)^2$:

A) $x^2 + 9$

B) $x^2 + 6x + 9$

C) $x^2 + 3x + 9$

D) $x^2 + 6x + 6$

D	C	B	A

MR. AGHEAD 0566991363

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

Learn Square of a Difference

Key Concept • Square of a Difference

Words The square of $a - b$ is the square of a minus twice the product of a and b plus the square of b.

A) $a^2 - b^2$
B) $a^2 - 2ab + b^2$
C) $a^2 + 2ab + b^2$
D) $a^2 - 2ab - b^2$

D	C	B	A

Find the product of $(x - 8)^2$:

A) $x^2 - 64$
B) $x^2 - 8x + 64$
C) $x^2 - 16x - 64$
D) $x^2 - 16x + 64$

D	C	B	A

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

Find each product.

1. $(a + 10)(a + 10)$

A) $a^2 + 100$
B) $a^2 + 20a + 100$
C) $a^2 + 10a + 100$
D) $a^2 + 20a + 20$

D	C	B	A

2. $(b - 6)(b - 6)$

A) $b^2 - 12b + 36$
B) $b^2 - 36$
C) $b^2 + 12b + 36$
D) $b^2 - 12b - 36$

D	C	B	A

3. $(h + 7)^2$

A) $h^2 + 49$
B) $h^2 + 7h + 49$
C) $h^2 + 14h + 49$
D) $h^2 + 14h + 14$

D	C	B	A

MR. AGHEAD 0566991363

4. $(x + 6)^2$

A) $x^2 + 36$
B) $x^2 + 12x + 36$
C) $x^2 + 6x + 36$
D) $x^2 - 12x + 36$

D	C	B	A

5. $(8 - m)^2$

A) $64 - m^2$
B) $64 - 8m + m^2$
C) $64 + 16m + m^2$
D) $64 - 16m + m^2$

D	C	B	A

6. $(9 - 2y)^2$

A) $81 - 36y + 4y^2$
B) $81 - 4y^2$
C) $81 - 18y + 4y^2$
D) $81 + 36y + 4y^2$

D	C	B	A

MR. AGHEAD 0566991363

Q3: find the product of sums and differnces

page: 658, (15-20)

MCQ

Find each product.

15. $(u + 3)(u - 3)$

A) $u^2 + 9$
B) $u^2 - 6u - 9$
C) $u^2 - 9$
D) $u^2 - 6$

D	C	B	A

16. $(b + 7)(b - 7)$

A) $b^2 - 49$
B) $b^2 + 49$
C) $b^2 - 14b - 49$
D) $b^2 - 14$

D	C	B	A

MR. AGHEAD 0566991363

17. $(2 + x)(2 - x)$

A) $4 + x^2$
B) $4 - x^2$
C) $x^2 - 4$
D) $4 - 4x - x^2$

D	C	B	A

18. $(4 - x)(4 + x)$

A) $16 - 8x - x^2$
B) $x^2 - 16$
C) $16 + x^2$
D) $16 - x^2$

D	C	B	A

MR. AGHEAD 0566991363

19. $(2q + 5r)(2q - 5r)$

A) $4q^2 - 25r^2$
B) $4q^2 + 25r^2$
C) $4q^2 - 20qr - 25r^2$
D) $2q^2 - 5r^2$

D	C	B	A

20. $(3a^2 + 7b)(3a^2 - 7b)$

A) $9a^2 - 49b^2$
B) $9a^4 + 49b^2$
C) $9a^4 - 49b^2$
D) $6a^4 - 14b^2$

D	C	B	A

MR. AGHEAD 0566991363

Q4: factor polynomials by using the distributive property

page: 665, (1-6)

MCQ

Use the Distributive Property to factor each polynomial.

1. $16t - 40y$

A) $4(4t - 10y)$
B) $8(2t - 5y)$
C) $8(2t + 5y)$
D) $2(8t - 20y)$

D	C	B	A

2. $30v + 50x$

A) $10(3v + 5x)$
B) $5(6v + 10x)$
C) $10(3v - 5x)$
D) $15(2v + 3x)$

D	C	B	A

MR. AGHEAD 0566991363

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

3. $2k^2 + 4k$

A) $2(k^2 + 2k)$
B) $2k(k + 4)$
C) $2k(k + 2)$
D) $k(2k + 4)$

D	C	B	A

4. $5z^2 + 10z$

A) $5z(z + 2)$
B) $5(z^2 + 2z)$
C) $5z(z + 5)$
D) $z(5z + 10)$

D	C	B	A

5. $4a^2b^2 + 2a^2b - 10ab^2$

A) $2ab(2ab + a - 5b)$
B) $2ab(2ab + 2a - 5b)$
C) $ab(4ab + 2a - 10b)$
D) $2a(2ab^2 + ab - 5b^2)$

D	C	B	A

6. $5c^2v - 15c^2v^2 + 5c^2v^3$

A) $5c^2v(1 - 3v + v^2)$
B) $5c^2(v - 3v^2 + v^3)$
C) $5c^2v(-3v + v^2)$
D) $5cv(c - 3cv + cv^2)$

D	C	B	A

احصل على الشرح كاملاً بـ 149 درهم فقط

للتواصل اضغط الرقم: 0566991363

Q5: factor trinomials of the form x^2 +bx + c

page: 674, (73-78)

MCQ

73. WHICH ONE DOESN'T BELONG? Which expression does not belong with the others?

$x^2 + 2x - 24$	$x^2 + 11x + 24$	$x^2 - 10x - 24$	$x^2 + 12x + 24$

74. FIND THE ERROR Jamaall and Charles have factored $x^2 + 6x - 16$. Is either of them correct?

Jamaall	Charles
$x^2 + 6x - 16 = (x + 2)(x - 8)$	$x^2 + 6x - 16 = (x - 2)(x + 8)$

MR. AGHEAD 0566991363

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

ANALYZE Find all values of k so that each polynomial can be factored using integers.

75. $x^2 + kx - 19$

A) $-18, 18$
B) $-19, 19$
C) $-20, 20$
D) $-10, 10$

D	C	B	A

76. $x^2 + kx + 14$

A) $-13, -8, 8, 13$
B) $-15, -9, 9, 15$
C) $-14, -7, 7, 14$
D) $-15, 15$ only

D	C	B	A

77. $x^2 - 8x + k, k > 0$

A) $7, 12, 15, 16$
B) $1, 2, 4, 8$
C) $8, 16, 24, 32$
D) $3, 5, 7, 9$

D	C	B	A

MR. AGHEAD 0566991363

78. $x^2 - 5x + k, k > 0$

A) $5, 10$
B) $2, 3$
C) $4, 6$
D) $1, 5$

D	C	B	A

MR. AGHEAD 0566991363

Q6: factor trinomials of the form ax^2 +bx + c

page: 672, (21-26)

MCQ

Factor each polynomial, if possible. If the polynomial cannot be factored using integers, write *prime*.

21. $5x^2 + 34x + 24$

A) $(5x + 6)(x + 4)$
B) $(5x + 4)(x + 6)$
C) $(5x + 12)(x + 2)$
D) أولية (Prime)

D	C	B	A

MR. AGHEAD 0566991363

22. $2x^2 + 19x + 24$

A) $(2x + 3)(x + 8)$
B) $(2x + 8)(x + 3)$
C) $(2x + 6)(x + 4)$
D) $(2x + 1)(x + 24)$

D	C	B	A

23. $4x^2 + 22x + 10$

A) $(4x + 2)(x + 5)$
B) $2(2x + 5)(x + 1)$
C) $2(2x + 1)(x + 5)$
D) أولية (Prime)

D	C	B	A

24. $4x^2 + 38x + 70$

A) $2(2x + 7)(x + 5)$
B) $2(2x + 5)(x + 7)$
C) $(4x + 10)(x + 7)$
D) $2(4x + 5)(x + 7)$

D	C	B	A

MR. AGHEAD 0566991363

25. $2x^2 - 3x - 9$

A) $(2x-3)(x+3)$
B) $(2x+9)(x-1)$
C) $(2x-9)(x+1)$
D) $(2x+3)(x-3)$

D	C	B	A

26. $4x^2 - 13x + 10$

A) $(4x-5)(x-2)$
B) $(4x-2)(x-5)$
C) $(2x-5)(2x-2)$
D) $(4x+5)(x-2)$

D	C	B	A

MR. AGHEAD 0566991363

Q7: factor binomilas that are the difference of squares

page: 679, (1-6)

MCQ

Factor each polynomial.

1. $q^2 - 121$

A) $(q-11)^2$
B) $(q+11)(q-11)$
C) $(q+11)^2$
D) $(q-121)(q+1)$

D	C	B	A

2. $r^4 - k^4$

A) $(r^2-k^2)^2$
B) $(r^2+k^2)(r-k)^2$
C) $(r^2+k^2)(r+k)(r-k)$
D) $(r+k)^2(r-k)^2$

D	C	B	A

MR. AGHEAD 0566991363

3. $w^4 - 625$

A) $(w^2 + 25)(w + 5)(w - 5)$
B) $(w^2 - 25)^2$
C) $(w^2 + 25)(w^2 + 25)$
D) $(w + 5)^2(w - 5)^2$

D	C	B	A

4. $r^2 - 9t^2$

A) $(r - 3t)^2$
B) $(r + 9t)(r - 9t)$
C) $(r + 3t)(r - 3t)$
D) $(r - 3t)(r - 3t)$

D	C	B	A

MR. AGHEAD 0566991363

5. $h^4 - 256$

A) $(h^2+16)(h^2-16)$
B) $(h^2+16)(h+4)(h-4)$
C) $(h+4)^2(h-4)^2$
D) $(h^2-16)^2$

D	C	B	A

6. $2x^3 - x^2 - 162x + 81$

A) $(x+9)(x-9)(2x-1)$
B) $(x^2-81)(2x+1)$
C) $(x+9)^2(2x-1)$
D) $(x-9)^2(2x+1)$

D	C	B	A

MR. AGHEAD 0566991363

Q8: divide monomials using the properties of exponets

page: 581,583, learn + (5-9)

MCQ

Key Concept • Power of a Quotient

Words	To find the power of a quotient, find the power of the numerator and the power of the denominator.

According to the "Power of a Quotient" property, for any real numbers a and $b \neq 0$, and any integer m, the expression $\left(\frac{a}{b}\right)^m$ is equal to:

A) $\frac{a \cdot m}{b \cdot m}$

B) $\frac{a^m}{b}$

C) $\frac{a^m}{b^m}$

D) $\frac{a}{b^m}$

D	C	B	A

MR. AGHEAD 0566991363

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

Which of the following represents the expression $\left(\frac{c}{d}\right)^6$ using the Power of a Quotient property?

A) $\frac{c^6}{d^6}$

B) $\frac{6c}{6d}$

C) $\frac{c^6}{d}$

D) $\frac{c}{d^6}$

D	C	B	A

Simplify each expression. Assume that no denominator equals zero.

5. $\left(\frac{p^2t^7}{10}\right)^3$

A) $\frac{p^5t^{10}}{30}$

B) $\frac{p^6t^{21}}{1000}$

C) $\frac{p^6t^{21}}{30}$

D) $\frac{p^5t^{21}}{1000}$

D	C	B	A

6. $\frac{a^7b^8c}{a^5bc}$

A) a^2bc^7

B) $a^{12}b^{15}c^9$

C) a^2bc

D) $a^2b^7c^7$

D	C	B	A

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

7. $\left(\frac{3np^3}{7q^2}\right)^2$

A) $\frac{6n^2p^6}{14q^4}$

B) $\frac{9np^6}{49q^4}$

C) $\frac{9n^2p^5}{49q^4}$

D) $\frac{9n^2p^6}{49q^4}$

D	C	B	A

8. $\left(\frac{2r^3t^6}{5u^9}\right)^4$

A) $\frac{16r^7t^{10}}{625u^{13}}$

B) $\frac{16r^{12}t^{24}}{625u^{36}}$

C) $\frac{8r^{12}t^{24}}{20u^{36}}$

D) $\frac{16r^{12}t^{24}}{20u^{36}}$

D	C	B	A

9. $\left(\frac{3m^5r^3}{4p^8}\right)^4$

A) $\frac{81m^{20}r^{12}}{256p^{32}}$

B) $\frac{12m^{20}r^{12}}{16p^{32}}$

C) $\frac{81m^9r^7}{256p^{12}}$

D) $\frac{81m^{20}r^{12}}{16p^{32}}$

D	C	B	A

احصل على الشرح كاملاً بـ 149 درهم فقط

للتواصل اضغط الرقم: 0566991363

Q9: simplify expression containing negative and zero exponents

page: 587,591, learn + (11-14)

MCQ

Learn Zero Exponent

Key Concept • Zero Exponent Property

Words	Any nonzero number raised to the zero power is equal to 1.

What is the value of $\left(\frac{x}{y}\right)^0$ (where $x, y = 0$)?

A) 0
B) $\frac{x}{y}$
C) 1
D) Undefined

D	C	B	A

Simplify each expression. Assume that no denominator equals zero.

11. $\frac{3m^{-3}t^4p^2}{12t^4}$

A) $\frac{p^2}{4m^3}$
B) $\frac{m^3p^2}{4}$
C) $\frac{p^2t^8}{4m^3}$
D) $\frac{4p^2}{m^3}$

D	C	B	A

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

12. $\left(\frac{3t^6u^2v^5}{9tuv^{21}}\right)^0$

A) 0
B) $\frac{1}{3}t^5uv^{-16}$
C) 1
D) غير معرّف

D	C	B	A

13. $\frac{xy^{-4}z^9}{z^{-2}}$

A) $\frac{xz^7}{y^4}$
B) $\frac{xz^{11}}{y^4}$
C) $\frac{xy^4}{z^{11}}$
D) xy^4z^{11}

D	C	B	A

14. $-\left(\frac{5f^9g^4h^2}{fg^2h^3}\right)^0$

A) 1
B) 0
C) -1
D) غير معرّف

D	C	B	A

Q10: Evaluate and rewrite expressions involving rational exponents

page: 599, (9-16)

MCQ

Evaluate each expression.

9. $\left(\frac{1}{16}\right)^{\frac{1}{4}}$

$\frac{1}{4}$ (A
$\frac{1}{2}$ (B
$\frac{1}{8}$ (C
2 (D

D	C	B	A

10. $\sqrt[5]{3125}$

5 (A
25 (B
$\frac{1}{5}$ (C
15 (D

D	C	B	A

MR. AGHEAD 0566991363

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

11. $729^{\frac{1}{3}}$

3 (A
27 (B
9 (C
81 (D

D	C	B	A

12. $\left(\frac{1}{32}\right)^{\frac{1}{5}}$

$\frac{1}{2}$ (A
$\frac{1}{4}$ (B
$\frac{1}{16}$ (C
2 (D

D	C	B	A

13. $\sqrt[6]{4096}$

2 (A
4 (B
8 (C
16 (D

D	C	B	A

MR. AGHEAD 0566991363

14. $1024^{\frac{1}{5}}$

8 (A
2 (B
4 (C
16 (D

D	C	B	A

15. $\left(\frac{16}{625}\right)^{\frac{1}{4}}$

$\frac{4}{25}$ (A
$\frac{2}{25}$ (B
$\frac{4}{5}$ (C
$\frac{2}{5}$ (D

D	C	B	A

16. $\sqrt[6]{15,625}$

25 (A
5 (B
15 (C
125 (D

D	C	B	A

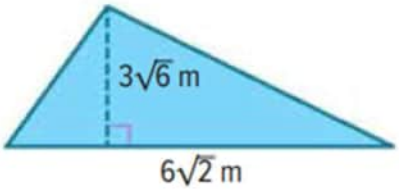
MR. AGHEAD 0566991363

Q11: Simplify radical expressions by using the Product Property of Square Roots

page: 609, (67-70)

MCQ

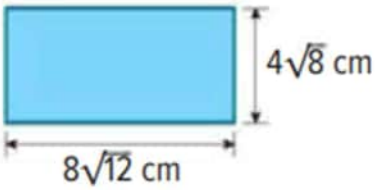
67. AREA The base of a triangle measures $6\sqrt{2}$ meters and the height measures $3\sqrt{6}$ meters. What is the area?



$9\sqrt{3}\ m^2$ (A
$18\sqrt{3}\ m^2$ (B
$36\sqrt{3}\ m^2$ (C
$18\sqrt{12}\ m^2$ (D

D	C	B	A

68. AREA The length of a rectangle measures $8\sqrt{12}$ centimeters and the width measures $4\sqrt{8}$ centimeters. What is the area of the rectangle?



$128\sqrt{6}\ cm^2$ (A
$64\sqrt{6}\ cm^2$ (B
$32\sqrt{96}\ cm^2$ (C
$256\sqrt{3}\ cm^2$ (D

D	C	B	A

MR. AGHEAD 0566991363

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

69. MEAN The geometric mean of two numbers h and k can be found by evaluating $\sqrt{h \cdot k}$. Find the geometric mean of 32 and 14 in simplified radical form.

$16\sqrt{7}$ (A
$4\sqrt{14}$ (B
$8\sqrt{7}$ (C
$8\sqrt{14}$ (D

D	C	B	A

70. THEATRE CREW Fernanda oversees painting props for a theatre production. She needs to create a cube that will be used as a prop by the actors. She has enough paint to cover 5 square yards. The formula $s = \sqrt{\frac{A}{6}}$ gives the longest side length s in yards of a cubic prop Fernanda can make, where A is the surface area to be covered with paint. What is the longest side length of a cube Fernanda could make and not have to purchase any more paint? Round to the nearest tenth of a yard.

0.8 yard (A
0.9 yard (B
1.2 yards (C
1.0 yard (D

D	C	B	A

MR. AGHEAD 0566991363

Q12: Simplify radical expressions by using the Quotient Property of Square Roots

page: 607, 608, (15-18) + (55 & 56)

MCQ

Simplify each expression.

15. $\sqrt{\frac{192}{216}}$

$\frac{4}{3}$ (A

$\frac{2\sqrt{2}}{3}$ (B

$\frac{4\sqrt{2}}{6}$ (C

$\frac{\sqrt{6}}{3}$ (D

D	C	B	A

16. $\sqrt{\frac{88}{18}}$

$\frac{2\sqrt{11}}{3}$ (A

$\frac{\sqrt{44}}{3}$ (B

$\frac{4\sqrt{11}}{9}$ (C

$\frac{2\sqrt{22}}{3}$ (D

D	C	B	A

MR. AGHEAD 0566991363

17. $\sqrt{\frac{84}{121}}$

$\frac{4\sqrt{21}}{11}$ (A
$\frac{2\sqrt{21}}{121}$ (B
$\frac{2\sqrt{21}}{11}$ (C
$\frac{\sqrt{84}}{11}$ (D

D	C	B	A

18. $\sqrt{\frac{75}{20}}$

$\frac{5\sqrt{3}}{2}$ (A
$\frac{\sqrt{15}}{4}$ (B
$\frac{3}{2}$ (C
$\frac{\sqrt{15}}{2}$ (D

D	C	B	A

55. $\sqrt[3]{\frac{192x^7}{1029x^{10}}}$

$\frac{4}{7x}$ (A
$\frac{4x}{7}$ (B
$\frac{8}{7x^3}$ (C
$\frac{4}{49x}$ (D

D	C	B	A

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

56. $\sqrt[3]{\frac{640a^3b^8}{5ab^4}}$

$4b\sqrt{2a^2b}$ (A

$4ab\sqrt{2b}$ (B

$8b\sqrt{2a^2b}$ (C

$4b^2\sqrt{2a^2}$ (D

D	C	B	A

MR. AGHEAD 0566991363

Q13: Add and subtract radical expressions
page: 615, (1-8)

MCQ

Simplify.

1. $7\sqrt{7} - 2\sqrt{7}$

A) 5
B) $5\sqrt{7}$
C) $9\sqrt{7}$
D) $5\sqrt{14}$

D	C	B	A

2. $3\sqrt{13} + 7\sqrt{13}$

A) $10\sqrt{13}$
B) $10\sqrt{26}$
C) $21\sqrt{13}$
D) $4\sqrt{13}$

D	C	B	A

MR. AGHEAD 0566991363

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

3. $7\sqrt{5} + 4\sqrt{5}$

A) $11\sqrt{10}$
B) $28\sqrt{5}$
C) $11\sqrt{5}$
D) $3\sqrt{5}$

D	C	B	A

4. $2\sqrt{6} + 9\sqrt{6}$

A) $11\sqrt{12}$
B) $18\sqrt{6}$
C) $7\sqrt{6}$
D) $11\sqrt{6}$

D	C	B	A

5. $12\sqrt{r} - 9\sqrt{r}$

A) 3
B) $3\sqrt{r}$
C) $21\sqrt{r}$
D) $3r$

D	C	B	A

MR. AGHEAD 0566991363

6. $9\sqrt{6a} - 11\sqrt{6a} + 4\sqrt{6a}$

A) $2\sqrt{6a}$
B) $-2\sqrt{6a}$
C) $6\sqrt{6a}$
D) $2\sqrt{18a}$

D	C	B	A

7. $3\sqrt{5} - 2\sqrt{20}$

A) $\sqrt{5}$
B) $-\sqrt{5}$
C) $-7\sqrt{5}$
D) $\sqrt{-15}$

D	C	B	A

8. $3\sqrt{50} - 3\sqrt{32}$

A) $6\sqrt{2}$
B) $3\sqrt{18}$
C) $3\sqrt{2}$
D) $-3\sqrt{2}$

D	C	B	A

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

Q14: Solve quadratic equations by factoring

page: 722, (29 & 30)

MCQ

29. FREE FALL The function $f(t) = -16t^2 + 576$ represents the height of a freely falling ballast bag that was accidentally dropped from a hot-air balloon 576 feet above the ground. After how many seconds t does the ballast bag hit the ground?

4 seconds (A
6 seconds (B
12 seconds (C
36 seconds (D

D	C	B	A

MR. AGHEAD 0566991363

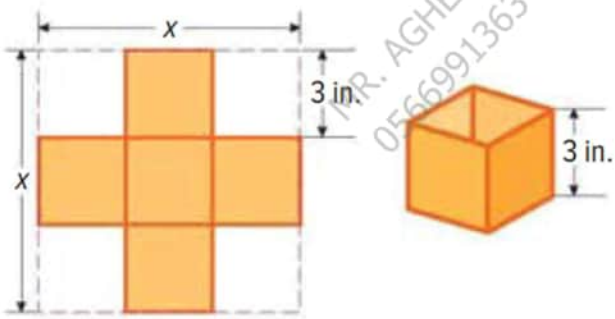
للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

للتواصل اضغط الرقم:
0566991363

Mr. Aghead

30. VOLUME Catalina can make an open-topped box out of a square piece of cardboard by cutting 3-inch squares from the corners and folding up the sides to meet. The volume of the resulting box is $V = 3x^2 - 36x + 108$, where x is the original length and width of the cardboard.



a. Factor the polynomial expression from the volume equation.

$3(x-6)^2$ (A
$(3x-18)(x-6)$ (B
$3(x+6)^2$ (C
$3(x-6)(x+6)$ (D

D	C	B	A

b. What is the volume of the box if the original length of each side of the cardboard was 9 inches?

$81\ \text{in}^3$ (A
$54\ \text{in}^3$ (B
$27\ \text{in}^3$ (C
$9\ \text{in}^3$ (D

D	C	B	A

MR. AGHEAD 0566991363

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

Q15: Solve quadratic equations by using the Square Root Property / Solve quadratic equations by completing the square

page: 730, 725, (37-39) + learn

MCQ

Learn Solving Quadratic Equations by Completing the Square

To complete the square for a quadratic expression in the form $x^2 + bx$, which term must be added to $x^2 + bx$?

A) $\frac{b}{2}$
B) b^2
C) $\left(\frac{b}{2}\right)^2$
D) $2b^2$

D	C	B	A

the expression $x^2 + bx + \left(\frac{b}{2}\right)^2$ factors into:

A) $\left(x + \frac{b}{2}\right)^2$
B) $(x + b)^2$
C) $\left(x - \frac{b}{2}\right)^2$
D) $(x + 2b)^2$

D	C	B	A

MR. AGHEAD 0566991363

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

للتواصل اضغط الرقم:
0566991363

Mr. Aghead

37. WHICH ONE DOESN'T BELONG? Identify the expression that does not belong with the other three. Explain your reasoning.

$n^2 - n + \frac{1}{4}$ | $n^2 + n + \frac{1}{4}$ | $n^2 - \frac{2}{3}n + \frac{1}{9}$ | $n^2 + n\frac{1}{3} + \frac{1}{9}$

38. CREATE Write a quadratic equation for which the only solution is 4.

$x^2 - 16 = 0$ (A

$x^2 - 8x + 16 = 0$ (B

$x^2 + 8x + 16 = 0$ (C

$x^2 - 4x + 16 = 0$ (D

D	C	B	A

39. WRITE Compare and contrast the following strategies for solving $x^2 - 5x - 7 = 0$: completing the square, graphing, and factoring.

A) The equation can be easily solved by factoring using integers.

B) Because the leading coefficient is 1, completing the square is simpler; graphing allows estimating the solution, while factoring is not possible.

C) Graphing always gives exact algebraic solutions without estimation.

D) Completing the square cannot be used because the linear coefficient is odd.

D	C	B	A

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

Q16: Write a quadratic function in the form y = a(x - h)^2 + k / Transform graphs of quadratic functions of the form y = a(x - h)^2 + k
page: 699, 707, learn + (3-10)

MCQ

Learn Translations of Quadratic Functions

For the quadratic function $g(x) = x^2 + k$, if $k > 0$, the graph of $f(x) = x^2$ is translated vertically:

A) k units down

B) k units to the right

C) k units up

D) k units to the left

D	C	B	A

If the graph of $g(x) = x^2 + k$ represents a vertical translation of $f(x) = x^2$ by $|k|$ units down, then:

A) $k > 0$

B) $k < 0$

C) $k = 0$

D) $k \geq 1$

D	C	B	A

MR. AGHEAD 0566991363

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

Describe the translation in each function as it relates to the graph of the parent function.

3. $g(x) = (x - 1)^2$

A) translated left 1 unit
B) translated right 1 unit
C) translated up 1 unit
D) translated down 1 unit

D	C	B	A

4. $g(x) = x^2 - 8$

A) translated down 8 units
B) translated up 8 units
C) translated right 8 units
D) translated left 8 units

D	C	B	A

5. $g(x) = (x + 3)^2$

A) translated right 3 units
B) translated up 3 units
C) translated left 3 units
D) translated down 3 units

D	C	B	A

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

6. $g(x) = x^2 + 7$

A) translated down 7 units
B) translated left 7 units
C) translated right 7 units
D) translated up 7 units

D	C	B	A

7. $g(x) = (x + 2.5)^2$

A) translated right 2.5 units
B) translated left 2.5 units
C) translated up 2.5 units
D) translated down 2.5 units

D	C	B	A

8. $g(x) = (x + 5)^2 - 2$

A) translated right 5 units and down 2 units
B) translated left 5 units and up 2 units
C) translated left 5 units and down 2 units
D) translated right 5 units and up 2 units

D	C	B	A

MR. AGHEAD 0566991363

9. $g(x) = 6 + x^2$

A) translated up 6 units
B) translated down 6 units
C) translated right 6 units
D) translated left 6 units

D	C	B	A

10. $g(x) = -4 + (x - 3)^2$

A) translated left 3 units and down 4 units
B) translated right 3 units and up 4 units
C) translated left 3 units and up 4 units
D) translated right 3 units and down 4 units

D	C	B	A

MR. AGHEAD 0566991363

Q18: Write a quadratic function in the form y = a(x - h)^2 + k / Transform graphs of quadratic functions of the form y = a(x - h)^2 + k

page: 703 & 704, 707 & 708, learn + (23-30)

MCQ

Learn Reflections of Quadratic Functions

The graph of $-f(x)$ is the reflection of the graph of $f(x) = x^2$ across the:

A) y-axis

B) x-axis

C) origin

D) line $y = x$

D	C	B	A

The graph of $f(-x)$ is the reflection of the graph of $f(x) = x^2$ across the:

A) y-axis

B) x-axis

C) line $y = -x$

D) origin

D	C	B	A

MR. AGHEAD 0566991363

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

Which of the following functions represents a reflection of the graph of $f(x) = x^2$ across the x-axis?

A) $g(x) = (-x)^2$

B) $g(x) = x^2 - 1$

C) $g(x) = -x^2$

D) $g(x) = -(x-1)^2$

D	C	B	A

Which geometric transformation maps the parent function $f(x) = x^2$ onto $g(x) = (-x)^2$?

A) reflection across the x-axis

B) reflection across the y-axis

C) vertical translation down

D) horizontal translation left

D	C	B	A

Learn Transformations of Quadratic Functions

A quadratic function written in the form $f(x) = a(x-h)^2 + k$ is in:

A) standard form

B) vertex form

C) intercept form

D) factored form

D	C	B	A

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

In the function $f(x) = a(x-h)^2 + k$, which value stretches or compresses (dilates) the parent graph?

A) $|a|$

B) h

C) k

D) $h + k$

D	C	B	A

When the value of a is negative in $f(x) = a(x-h)^2 + k$, the parent graph is:

A) reflected across the y-axis

B) reflected across the x-axis

C) shifted down

D) shifted left

D	C	B	A

In the vertex form of a quadratic function, the value of k shifts (translates) the parent graph:

A) left or right

B) up or down

C) diagonally

D) across the origin

D	C	B	A

MR. AGHEAD 0566991363

Describe how the graph of each function is related to the graph of the parent function.

23. $g(x) = -\frac{1}{3}x^2$

A) stretched vertically and reflected across the x-axis
B) compressed vertically and reflected across the x-axis
C) stretched horizontally and reflected across the y-axis
D) compressed horizontally and reflected across the y-axis

D	C	B	A

24. $g(x) = \left(-\frac{2}{3}x\right)^2$

A) stretched horizontally and reflected across the y-axis
B) compressed horizontally and reflected across the y-axis
C) stretched vertically and reflected across the x-axis
D) compressed vertically and reflected across the x-axis

D	C	B	A

25. $g(x) = -2x^2$

A) compressed vertically and reflected across the x-axis
B) stretched horizontally and reflected across the y-axis
C) stretched vertically and reflected across the x-axis
D) compressed horizontally and reflected across the x-axis

D	C	B	A

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

26. $g(x) = \left(-\frac{6}{5}x\right)^2$

A) stretched horizontally and reflected across the y-axis
B) compressed vertically and reflected across the x-axis
C) stretched vertically and reflected across the x-axis
D) compressed horizontally and reflected across the y-axis

D	C	B	A

27. $h(x) = -7 - x^2$

A) reflected across the x-axis and translated down 7 units
B) reflected across the x-axis and translated up 7 units
C) reflected across the y-axis and translated down 7 units
D) reflected across the y-axis and translated right 7 units

D	C	B	A

28. $g(x) = 2(x - 3)^2 + 8$

A) translated left 3 units and up 8 units and compressed vertically
B) translated right 3 units and up 8 units and stretched vertically
C) translated right 3 units and down 8 units and stretched vertically
D) translated left 3 units and down 8 units and compressed horizontally

D	C	B	A

MR. AGHEAD 0566991363

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

29. $h(x) = 6 + \frac{2}{3}x^2$

A) stretched vertically and translated up 6 units
B) compressed vertically and translated down 6 units
C) compressed vertically and translated up 6 units
D) stretched horizontally and translated right 6 units

D	C	B	A

30. $g(x) = -5 - \frac{4}{3}x^2$

A) reflected across the x-axis, stretched vertically, and translated down 5 units
B) reflected across the x-axis, compressed vertically, and translated up 5 units
C) reflected across the y-axis, stretched vertically, and translated down 5 units
D) reflected across the x-axis, compressed vertically, and translated down 5 units

D	C	B	A

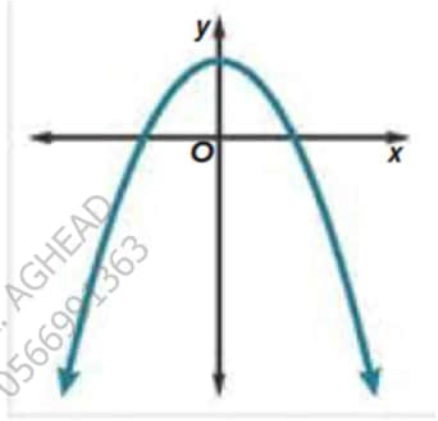
MR. AGHEAD 0566991363

Q19: Solve quadratic equations by graphing

page: 711, 713, learn + (1-6)

MCQ

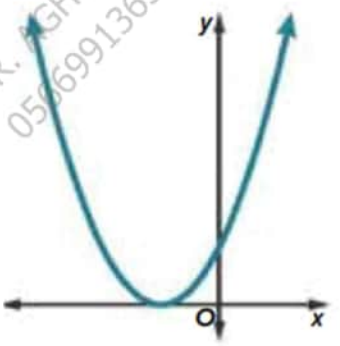
Learn Solving Quadratic Equations by Graphing



A) no real solutions
B) one unique real solution
C) two unique real solutions
D) infinitely many solutions

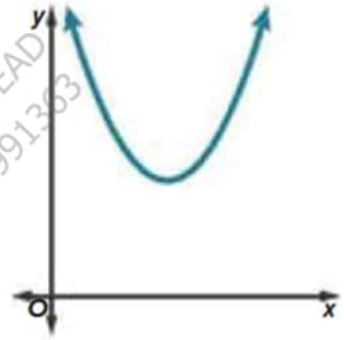
D	C	B	A

MR. AGHEAD 0566991363



A) one unique real solution
B) two unique real solutions
C) no real solutions
D) three real solutions

D	C	B	A



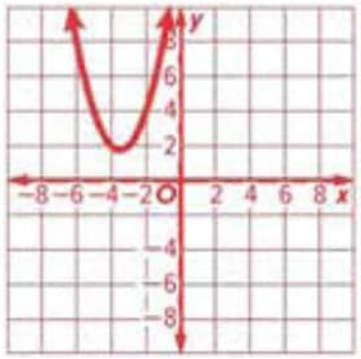
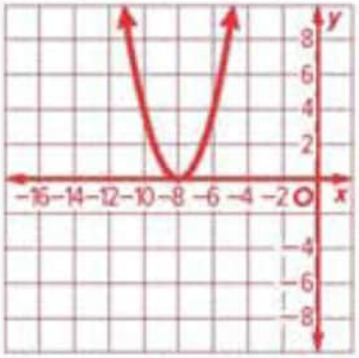
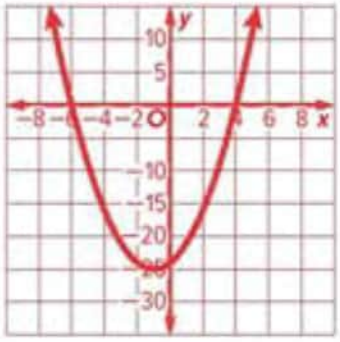
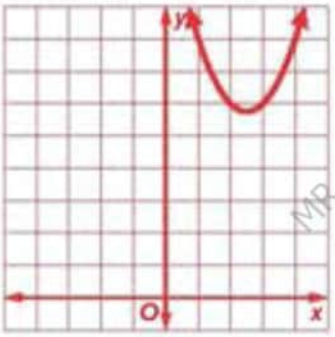
A) one unique real solution
B) two unique real solutions
C) no real solutions
D) two rational solutions

D	C	B	A

MR. AGHEAD 0566991363

Solve each equation by graphing.

1. $x^2 + 7x + 14 = 0$

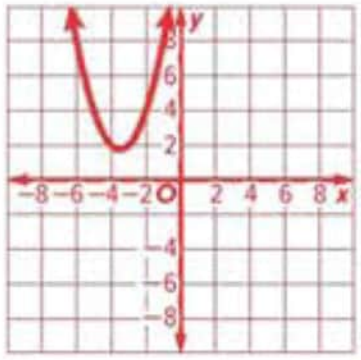
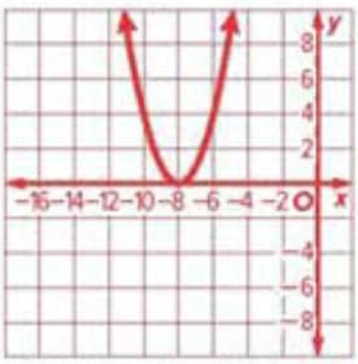
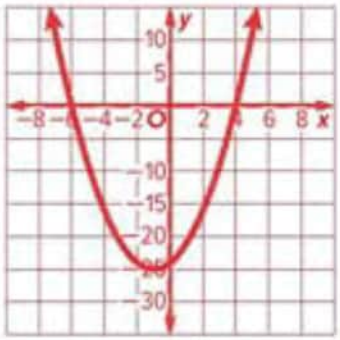
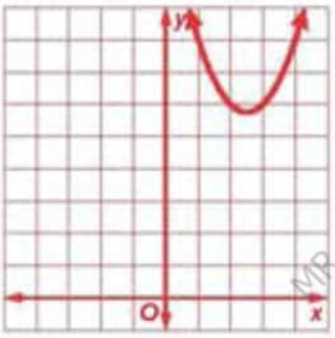
no solutions 	−8 
4, −6 	no solutions 

MR. AGHEAD 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

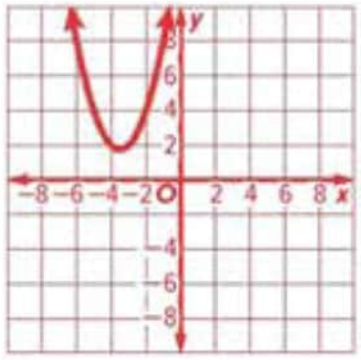
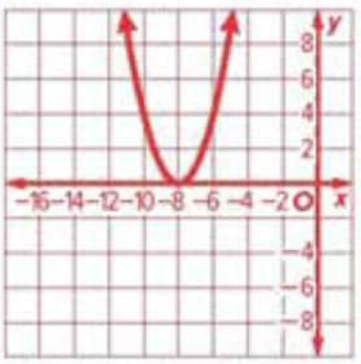
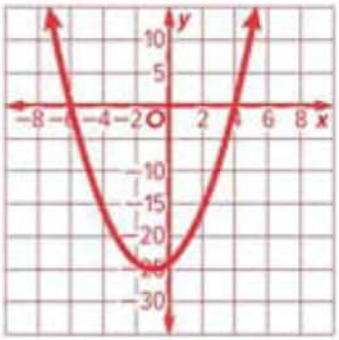
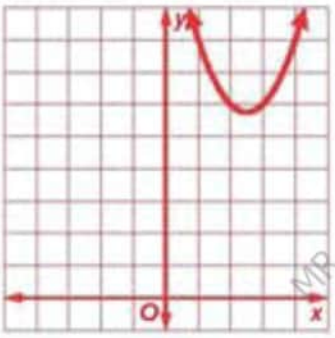
للتواصل اضغط الرقم: 0566991363

2. $x^2 + 2x - 24 = 0$

no solutions 	−8 
4, −6 	no solutions 

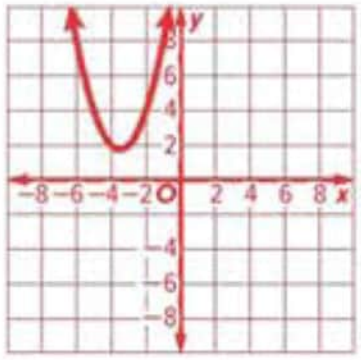
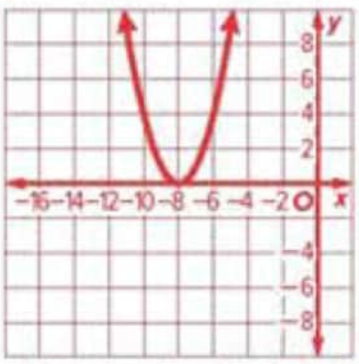
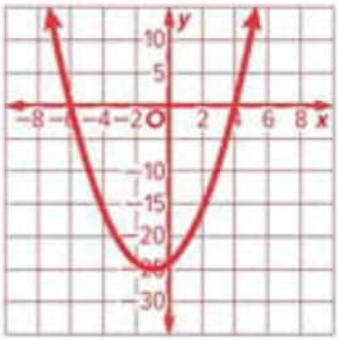
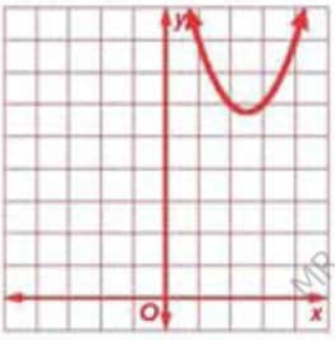
MR. AGHEAD 0566991363

3. $x^2 + 16x + 64 = 0$

no solutions 	-8 
$4, -6$ 	no solutions 

MR. AGHEAD 0566991363

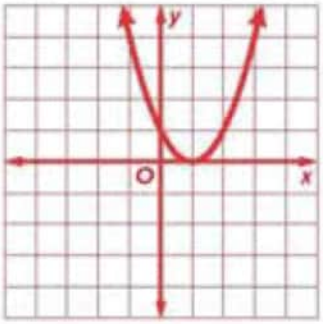
4. $x^2 - 5x + 12 = 0$

no solutions 	−8 
4, −6 	no solutions 

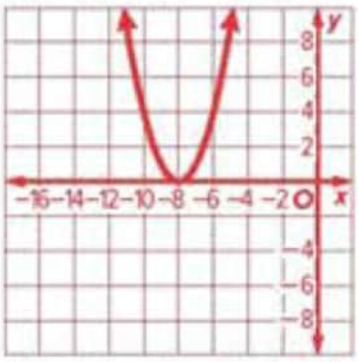
MR. AGHEAD 0566991363

5. $x^2 + 14x = -49$

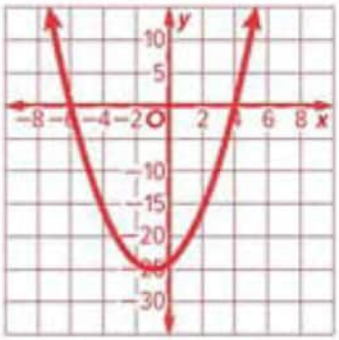
.1



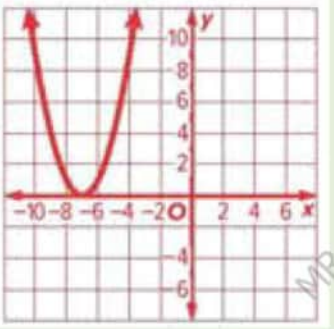
−8



4, −6



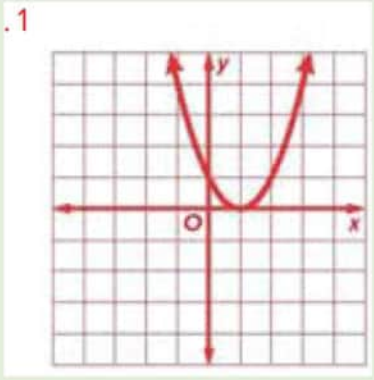
−7



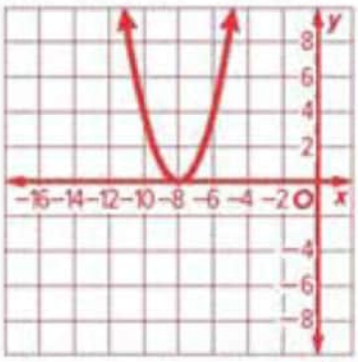
MR. AGHEAD 0566991363

6. $x \stackrel{?}{=} 2x - 1$

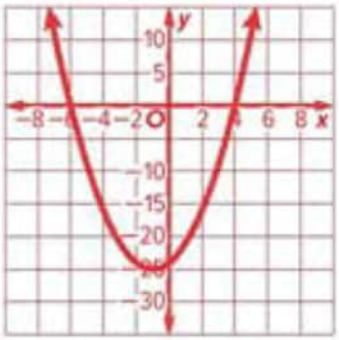
.1



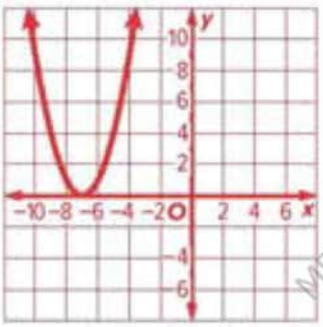
−8



4, −6



−7



MR. AGHEAD 0566991363

Q20: Solve quadratic equations by completing the square

page: 729, (1-6)

MCQ

Find the value of c that makes each trinomial a perfect square.

1. $x^2 + 26x + c$

13 (A
52 (B
169 (C
676 (D

D	C	B	A

2. $x^2 - 24x + c$

144 (A
−144 (B
12 (C
48 (D

D	C	B	A

MR. AGHEAD 0566991363

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

3. $x^2 - 19x + c$

$\frac{19}{2}$ (A
$\frac{361}{4}$ (B
$\frac{361}{2}$ (C
$-\frac{361}{4}$ (D

D	C	B	A

4. $x^2 + 17x + c$

$\frac{289}{4}$ (A
$\frac{17}{4}$ (B
$\frac{289}{2}$ (C
289 (D

D	C	B	A

5. $x^2 + 5x + c$

$\frac{5}{2}$ (A
$\frac{25}{2}$ (B
25 (C
$\frac{25}{4}$ (D

D	C	B	A

6. $x^2 - 13x + c$

$-\frac{169}{4}$ (A
$\frac{169}{4}$ (B
$\frac{13}{2}$ (C
$\frac{169}{2}$ (D

D	C	B	A

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

Q21: Add and subtract polynomials
page: 636, (27-34)

FRQ

Find each sum or difference.

27. $(3c^3 - c + 11) - (c^2 + 2c + 8)$

$3c^3 - c^2 - 3c + 3$

28. $(z^2 + z) + (z^2 - 11)$

$2z^2 + z - 11$

29. $(2x - 2y + 1) - (3y + 4x)$

$-2x - 5y + 1$

30. $(4a - 5b^2 + 3) + (6 - 2a + 3b)^2$

$-2b^2 + 2a + 9$

MR. AGHEAD 0566991363

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

31. $(x^2y - 3x^2 + y) + (3y - 2xy)^2$

$-x^2y - 3x^2 + 4y$

32. $(-8xy + 3x^2 - 5y) + (4x^2 - 2y + 6xy)$

$7x^2 - 2xy - 7y$

33. $(5n - 2p^2 + 2np) - (4p^2 + 4n)$

$-6p^2 + 2np + n$

34. $(4rxt - 8r^2x + x)^2 - (6rx^2 + 5rxt - 2x)^2$

$3x^2 - rxt - 8r^2x - 6rx^2$

MR. AGHEAD 0566991363

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

Q22: Multiply polynomials by using the Distributive Property
page: 650, (18-23)

FRQ

Find each product.

18. $(2y - 11)(y^2 - 3y + 2)$

$2y^3 - 17y^2 + 37y - 22$

19. $(4a + 7)(9a^2 + 2a - 7)$

$36a^3 + 71a^2 - 14a - 49$

20. $(m^2 - 5m + 4)(m^2 + 7m - 3)$

$m^4 + 2m^3 - 34m^2 + 43m - 12$

MR. AGHEAD 0566991363

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

21. $(x^2 + 5x - 1)(5x^2 - 6x + 1)$

$5x^4 + 19x^3 - 34x^2 + 11x - 1$

22. $(3b^3 - 4b - 7)(2b^2 - b - 9)$

$6b^5 - 3b^4 - 35b^3 + 11b^2 + 43b + 63$

23. $(6z^2 - 5z - 2)(3z^3 - 2z - 4)$

$18z^5 - 15z^4 - 18z^3 - 14z^2 + 24z + 8$

MR. AGHEAD 0566991363

Q23: Multiply monomials using the properties of exponents / Simplify expressions using the multiplication properties of exponents

page: 576, 578, (25-30) + (56-58)

FRQ

25. FIELDS A field is in the shape of a square. The length of the field is $5x^3y^5$. What is the area of the field in terms of x and y?

$25x^6y^{10}$

26. PICTURE FRAME Michelle is purchasing a new picture frame to hang in her bedroom. The picture frame is square shaped. What is the area of the interior of the picture frame in terms of c and d?



$25c^6d^4$

MR. AGHEAD 0566991363

للتواصل اضغط الرقم:
0566991363

Mr. Aghead

27. SHIPPING A shipping box is in the shape of a cube. What is the volume of the shipping box in terms of m and n?



$64m^{24}n^{12}$

Simplify each expression.

28. $(2a^3)^4(a^3)^3$

$16a^{21}$

29. $(c^3)^2(-3c^5)^2$

$9c^{16}$

30. $(2gh^4)^3[(-2g^4h)^3]^2$

$512g^{27}h^{18}$

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

56. STATE YOUR ASSUMPTION Consider the expressions $(m^p)(m^q)$ and $(m^p)^q$.

a. What must be true about p and q for $(m^p)(m^q) = (m^p)^q$? Give an example.

$p + q$ must equal $(p)(q)$; $p = 2$ and $q = 2$

b. Assuming m, p, and q are all positive integers, can $(m^p)(m^q) > (m^p)^q$ ever be true? Explain.

Y es; it is true if and only if p and q are 1 and m is an integer greater than 1.

57. PERSEVERE For any nonzero real numbers a and b and any integers m and t, simplify the expression $\left(\frac{-a^m}{b^t}\right)^{2t}$. Explain.

Sample answer: Use the Power of a Power Property to simplify the expression to $\frac{a^{2tm}}{b^{2t^2}}$.

MR. AGHEAD 0566991363

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

للتواصل اضغط الرقم:
0566991363

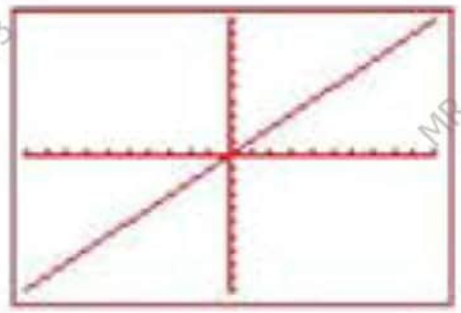
Mr. Aghead

58. ANALYZE Consider the equations in the table.

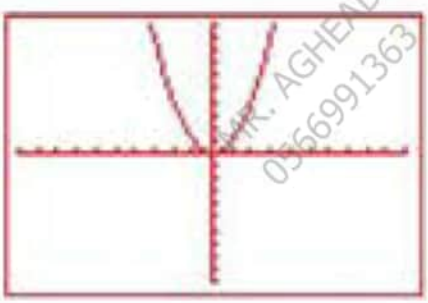
a. For each equation, copy and complete the table to write the related expression and record the power of x.

Equation	Related Expression	Power of x	Linear or Nonlinear
$y = x$	x	1	linear
$y = x^2$	x^2	2	nonlinear
$y = x^3$	x^3	3	nonlinear

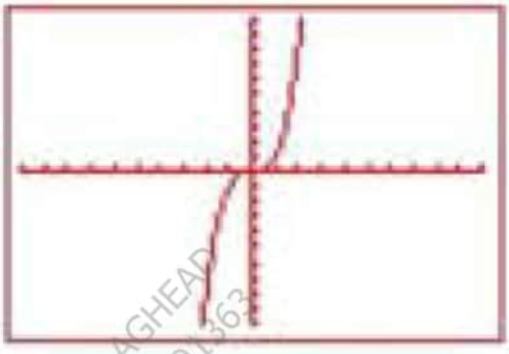
b. Graph each equation using a graphing calculator.



[−10, 10] scl: 1 by [−10, 10] scl: 1



[−10, 10] scl: 1 by [−10, 10] scl: 1



[−10, 10] scl: 1 by [−10, 10] scl: 1

للتواصل اضغط الرقم: 0566991363

احصل على الشرح كاملاً بـ 149 درهم فقط

c. Classify each graph as *linear* or *nonlinear*.

d. Explain how to determine whether an equation, or its related expression, is linear or nonlinear without graphing.

If the power of x is 1, the equation or its related expression is linear. Otherwise, it is nonlinear.

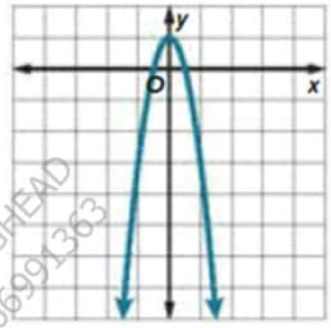
MR. AGHEAD 0566991363

Q24: Find and interpret the maximum and minimum values of a quadratic function
page: 695, (1-4)

FRQ

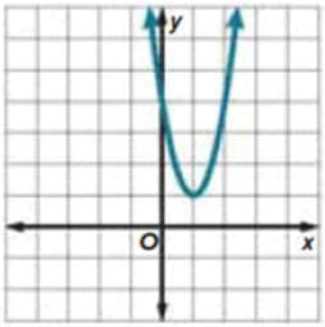
Identify the axis of symmetry, the vertex, and the *y*-intercept of each graph. Then describe the end behavior.

1.



1. axis of symmetry: $x = 0$; vertex: (0, 1); *y*-intercept: 1; end behavior: As *x* increases or decreases, *y* decreases.

2.

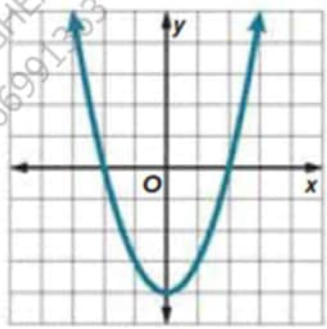


2. axis of symmetry: $x = 1$; vertex: (1, 1); *y*-intercept: 4; end behavior: As *x* increases or decreases, *y* increases.

للتواصل اضغط الرقم: 0566991363

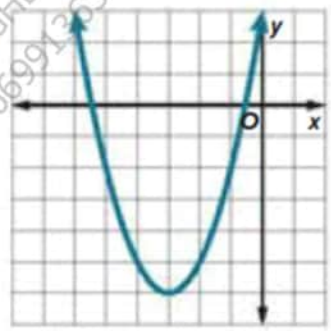
احصل على الشرح كاملاً بـ 149 درهم فقط

3.



3. axis of symmetry: $x = 0$; vertex: $(0, -4)$; y-intercept: -4; end behavior: As x increases or decreases, y increases.

4.



4. axis of symmetry: $x = -3$; vertex: $(-3, -6)$; y-intercept: 3; end behavior: As x increases or decreases, y increases.

MR. AGHEAD 0566991363

للتواصل اضغط الرقم: 0566991363

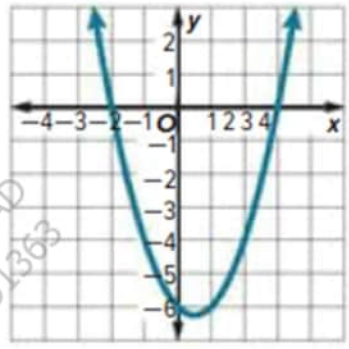
احصل على الشرح كاملاً بـ 149 درهم فقط

Q25: Write quadratic equations using the Standard Form
page: 722, (31-34)

FRQ

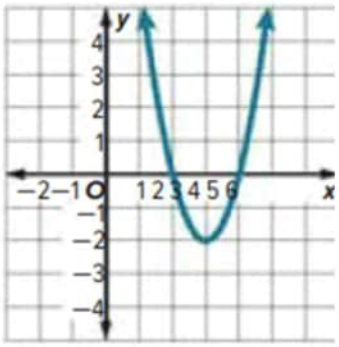
Write a quadratic function for the given graph.

31.



$$f(x) = x^2 - x - 6$$

32.



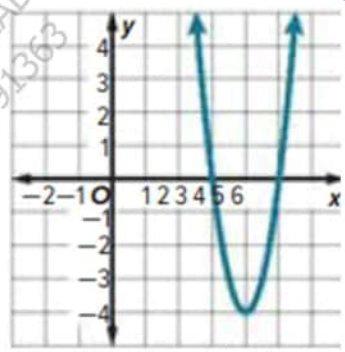
$$f(x) = 2x^2 - 12x + 16$$

MR. AGHEAD 0566991363

للتواصل اضغط الرقم: 0566991363

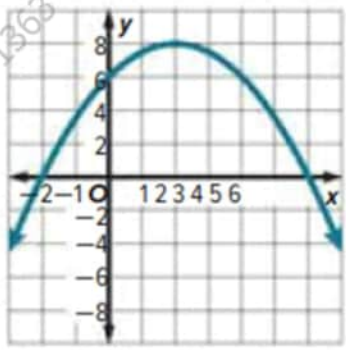
احصل على الشرح كاملاً بـ 149 درهم فقط

33.



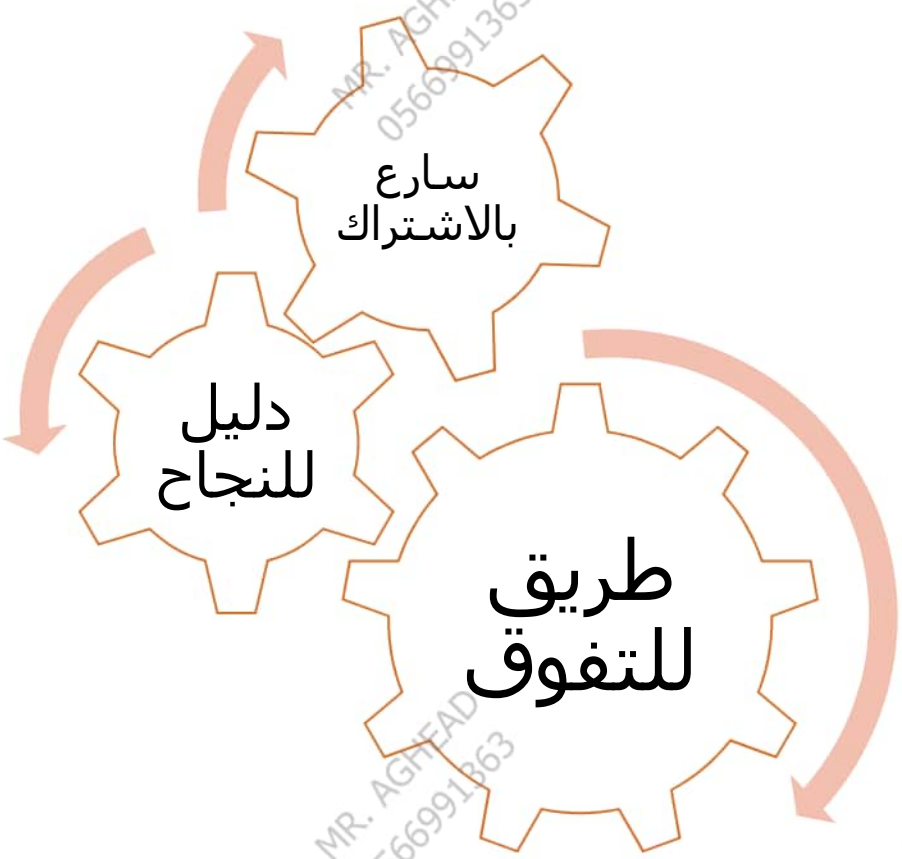
$$f(x) = 4x^2 - 32x + 60$$

34.



$$f(x) = -\frac{1}{2}x^2 + 2x + 6$$

MR. AGHEAD 0566991363



للحجز التواصل عبر الـ Whatsapp من خلال الضغط على الرقم:

0566991363

مع أطيب التمنيات بالنجاح والتوفيق ...

النهاية ...