تم تحميل هذا الملف من موقع المناهج الإماراتية	
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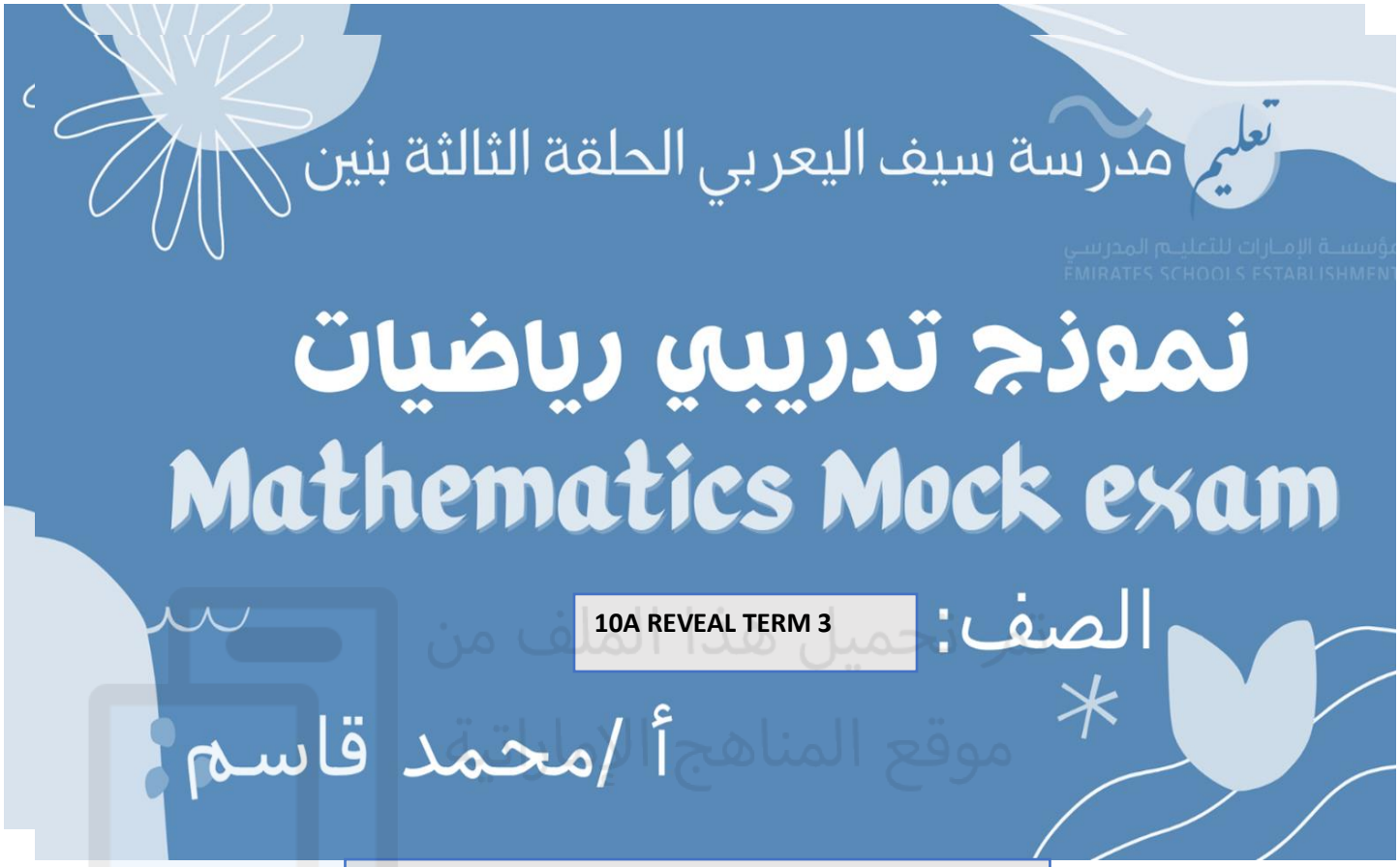
الملف أسئلة نموذج تدريبي ريفيل
موقع المناهج ⇦ المناهج الإماراتية ⇦ الصف العاشر المتقدم ⇦ رياضيات ⇦ الفصل الثالث

روابط مواقع التواصل الاجتماعي بحسب الصف العاشر المتقدم			
روابط مواد الصف العاشر المتقدم على تلغرام			
التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات

المزيد من الملفات بحسب الصف العاشر المتقدم والمادة رياضيات في الفصل الثالث	
1	أسئلة الاختبار التجريبي نخبة
2	حل أسئلة وفق الهيكل الوزاري نخبة
3	أسئلة الاختبار التجريبي ريفيل
4	أسئلة الاختبار التجريبي
5	حل تجميعة أسئلة وفق الهيكل الوزاري الجديد



الهيكل هو المرجع الأساسي وهذا النموذج بغرض التدريب

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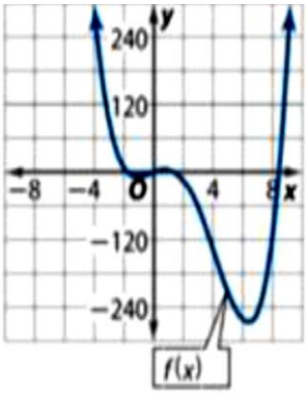
(1) Which of the following statements could be used to describe the end behavior of $f(x)$?

a. $\lim_{x\to-\infty} f(x) = -\infty, \lim_{x\to\infty} f(x) = \infty$

b. $\lim_{x\to-\infty} f(x) = -\infty, \lim_{x\to\infty} f(x) = -\infty$

c. $\lim_{x\to-\infty} f(x) = \infty, \lim_{x\to\infty} f(x) = \infty$

d. $\lim_{x\to-\infty} f(x) = \infty, \lim_{x\to\infty} f(x) = -\infty$



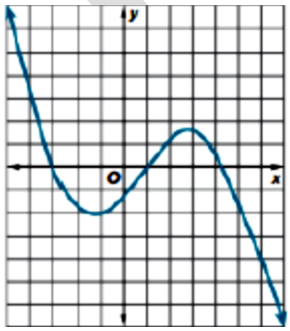
(2) Which of the following statements could be used to describe the end behavior of $f(x)$?

a. $\lim_{x\to-\infty} f(x) = -\infty, \lim_{x\to\infty} f(x) = \infty$

b. $\lim_{x\to-\infty} f(x) = -\infty, \lim_{x\to\infty} f(x) = -\infty$

c. $\lim_{x\to-\infty} f(x) = \infty, \lim_{x\to\infty} f(x) = \infty$

d. $\lim_{x\to-\infty} f(x) = \infty, \lim_{x\to\infty} f(x) = -\infty$



(3) What's the Range of function $f(x) = 2x^{-2}$?

a. $(0, \infty)$ b. $(-2, \infty)$ c. $(-\infty, 0)$ d. $(-\infty, \infty)$

(4) state the degree and leading coefficient, $h(x) = 9x^6 - 5x^7 + 3x^2$

a. Degree 6 Leading coefficient 9

b. Degree 7 Leading coefficient -5

c. Degree 7 Leading coefficient 9

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(5) state the degree and leading coefficient, $f(x) = -5x^4 + 3x^2$

a. Degree 4 Leading coefficient 3
b. Degree 4 Leading coefficient -5
c. Degree 5 Leading coefficient 4

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(6) One of the functions is not a polynomial

a. $f(x) = -5x^4 + 3x^2$
b. $g(x) = 8x^4 + 5x^5$
c. $f(x) = -6x^6 - 4x^5 + 13x^{-2}$
d. $h(x) = (x + 5)(3x - 4)$

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(7) Which of the following statements could be used to describe the end behavior of $f(x)$?

$f(x) = -2x^3 + 3x^2 + x - 3$

a. $\lim_{x\to-\infty} f(x) = \infty, \lim_{x\to\infty} f(x) = \infty$
b. $\lim_{x\to-\infty} f(x) = \infty, \lim_{x\to\infty} f(x) = -\infty$
c. $\lim_{x\to-\infty} f(x) = -\infty, \lim_{x\to\infty} f(x) = -\infty$
d. $\lim_{x\to-\infty} f(x) = -\infty, \lim_{x\to\infty} f(x) = \infty$

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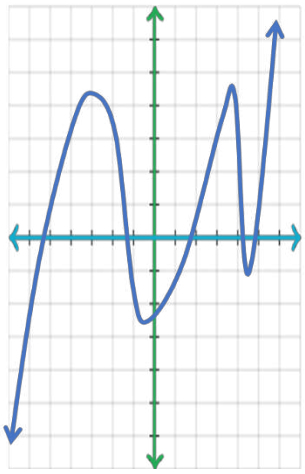
(8) What is the number of real zeros of the graphed function?

a. 2 b. 3
c. 6 *d.* 5



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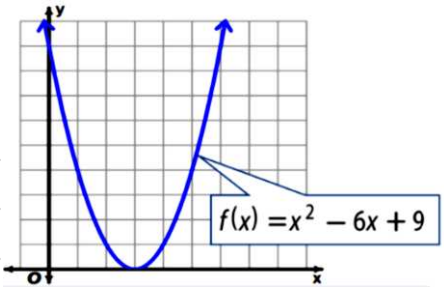
(9) Use the graph of the function $f(x)$ to find its $y-$ intercept.



a. 3 b. 0 c. 9 d. 6

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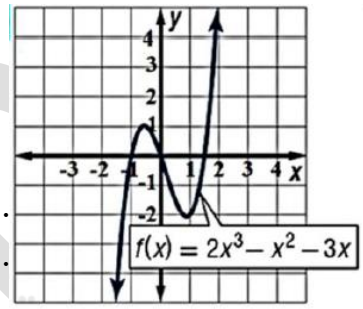
(10) Use the graph of each function to find its zero(s).



a. $x = -1, x = 0, x = 1.5$

b. $x = 0, x = 1$

c. $x = 1, x = 1.5$

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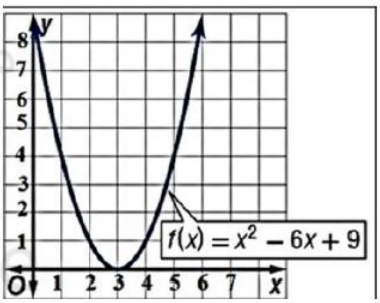
(11) Use the graph of each function to find its zero(s).



a. $x = 8, \ x = 3, x = 1.5$

b. $x = 0, x = 3$

c. $x = 3$

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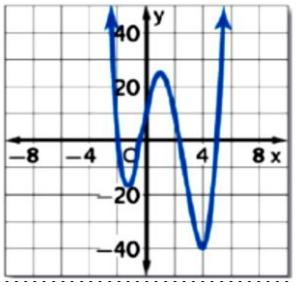
Use the graph of each function to find its zero(s).

(12) State the number of real zeros of the function with the graph shown.



a. 4 *b.* 3 c. 2 d. 1

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(13) Which polynomial function of degree $n = 4$, has only two real zeroes?

a. $f(x) = x^4 + 3x^2 - 4$ b. $f(x) = x^4 - x^3$

c. $f(x) = x^4 - 8x^2 + 15$ d. $f(x) = x^3 - x^2$

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Write each expression in quadratic form, if possible. (14-15)

(14) $x^4 + 12x^2 - 8$

a. $(x^2)^2 + 12(x^2) - 8$
b. $2(x^2)^2 + 6(2x^2) - 8$
c. $(x^2)^2 + 2(6x^2) - 8$
d. $(x^2)^2 + 6(2x^2) - 8$

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(15) $8x^6 + 6x^3 + 7$

a. $(8x^3)^2 + (6x^3) + 7$
b. $2(2x^3)^2 + 3(2x^3) + 7$
c. $2(4x^3)^2 + 3(2x^3) + 7$
d. $4(2x^3)^2 + 3(2x^3) + 7$

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(16) State the possible number of positive real zeros,

$g(x) = 3x^3 - 4x^2 - 17x + 6$

a. 1 *or* 3 b. 0 *or* 2 c. 1 d. no negative zeroes

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(17), what is the number of negative real zeroes

$f(x) = 6x^5 - 8x^2 - 10x - 15$ has?

a. 1 *or* 3 b. 0 *or* 2 c. 1 d. no negative zeroes

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Solve each equation.

(18) $x^4 + 6x^2 + 5 = 0$

a. $x = \mp i \ \ and \ \ x = \mp i\sqrt{5}$ b. $x = \mp i \ \ and \ \ x = \sqrt{5}$

c. $x = \mp 1 \ \ and \ \ x = \mp i\sqrt{5}$ d. $x = \mp 1 \ \ and \ \ x = \sqrt{5}$

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(19) $x^4 - 3x^2 - 10 = 0$

a. $x = \mp\sqrt{5} \ \ and \ \ x = \mp\sqrt{2}$ b. $x = \sqrt{5} \ \ and \ \ x = i\sqrt{2}$

c. $x = i\sqrt{5} \ and \ \ x = \sqrt{5}$ d. $x = i\sqrt{5} \ \ and \ \ x = i\sqrt{2}$

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Use synthetic substitution to find $f(2)$ Q20-21

(20) $f(x) = x^2 + 6x + 5$

a. 18 b. 19 c. 20 d. 21

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(21) $f(x) = x^3 + 2x^2 + 5$

a. 19 b. 20 c. 21 d. 22

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(22) State the number and type of roots, $2x^2 - 5x + 14 = 0$

a. 2 imaginary b. 3 real, c. 1 real,

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Solve each equation

(23) $4x^2 - 4x - 1 = 0$

a. $\frac{1\pm\sqrt{2}}{2}$ b. $\frac{2\pm\sqrt{2}}{2}$ c. $\frac{2\pm\sqrt{2}}{3}$ d. $\frac{3\pm\sqrt{2}}{2}$

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(24) $x^2 - 4x + 40 = 0$

a. $1 \pm 6i$ b. $1 \pm 7i$ c. $2 \pm 6i$ d. $2 \pm 7i$

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State the possible number of positive real zeros, negative real zeros, and imaginary zeros of each function.

(25) $g(x) = 3x^3 - 4x^2 - 17x + 6$

a. 2 or 0 positive real zeros, 1 negative real zero, 0 or 2 imaginary zeros

b. 4, 2 or 0 positive real zeros, 2 or 0 negative real zero, 1 or 3 imaginary zeros

c. 2 positive real zeros, 0 negative real zero, 1 imaginary zeros

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(26) $h(x) = 4x^3 - 12x^2 - x + 3$

a. 1 or 3 positive real zeros, 0 negative real zero, 1 or 3 imaginary zeros

b. 1 positive real zeros, 1 negative real zero, 1 imaginary zeros

c. 2 or 0 positive real zeros, 1 negative real zero, 0 or 2 imaginary zeros

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(27), what is the number of negative real zeroes

$f(x) = 6x^5 - 8x^2 - 10x - 15$ has?

a. 1 *or* 3 b. 0 *or* 2 c. 1 d. no negative zeroes

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(28) $f(x) = -x^2 + 6$, $g(x) = 2x^2 + 3x - 5$, Find $(f - g)(x)$,

a. $x^2 + 3x + 11$ b. $3x^2 + 3x - 11$

c. $-3x^2 + 3x + 11$ d. $-3x^2 - 3x + 11$

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(29) Given: $f(x) = x^2 + 5x - 2, g(x) = 3x - 2, find\ (f + g)(x)$

a. $x^2 + 2x - 4$ b. $x^2 + 8x - 4$

c. $x^2 - 2x$ d. $x^2 + 8x - 2$

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(30) find the inverse of the relation.

ΔMNP with vertices at $\{(-8, 6), (6, -2), (4, -6)\}$

a. $\{(6, -8), (-2, 6), (-6, 4)\}$ b. $\{(-1, 8), (-1, -8), (-8, -2)\}$

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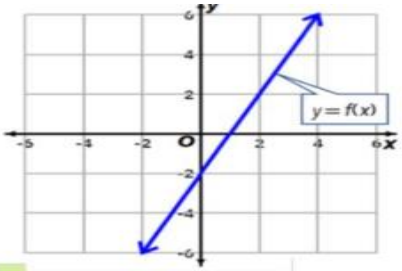
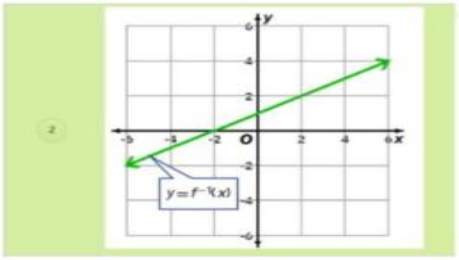
Find the inverse of each function.

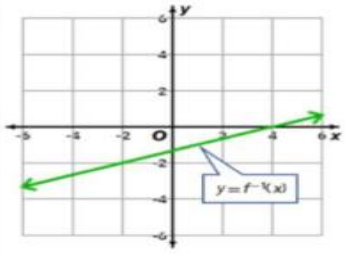
(31) $f(x) = -2x + 1$

a. $\frac{x+1}{2}$ b. $\frac{x-1}{2}$ c. $\frac{-x+1}{2}$ d. $\frac{-x-1}{2}$

Use the graph of y=f(x) to determine the graph of it inverse







(32) Find the inverse of the function $g(x) = 3x + 1$

a. $g^{-1}(x) = \frac{x-1}{3}$ b. $g^{-1}(x) = \frac{x+1}{3}$

c. $g^{-1}(x) = 3x - 1$ d. $g^{-1}(x) = x - 3$

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Simplify.

(33) $\pm\sqrt{121x^4y^{16}}$

a. $-11x^2y^8$ b. $\pm 11x^2y^8$ c. $\pm 11x^4y^8$ d. $\pm 11x^2y^{16}$

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(34) $-\sqrt{16c^4d^2}$

a. $-4c^2d$ b. $\pm 4c^2d$ c. $-8c^2d$ d. $\pm 8c^2d$

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(35) Evaluate the expression $27^{\frac{1}{3}}$

a. 2 *b.* 3 c. 9 d. 81

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(36) Write the radical in exponential form $\sqrt[3]{5xy^2}$

a. $5^{\frac{1}{3}}x^{\frac{1}{3}}y^{\frac{1}{3}}$ *b.* $5^{\frac{1}{3}}x^{\frac{1}{3}}y^{\frac{2}{3}}$ c. $5x^{\frac{1}{3}}y^{\frac{1}{3}}$

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(37) Determine the consecutive integer values of x between which each real zero of each function is

x	$f(x)$
-4	3
-3	-1
-2	-3
-1	-3
0	-1
1	3

a. between $x = -4$ *and* $x = -3$, *and* $x = 0$ *and* $x = 1$

b. between $x = -4$ *and* $x = -3$

c. zero between $x = -2$ *and* $x = -1$

d. none of the above

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(38) relative extrema occur,

a. relative max at $X = 0$, relative min at $X = -2.6$

b. relative min at $X = 0$, relative max at $X = -2.6$

c. relative min at $X = 8$, relative max at $X = -8$

d. none of the above

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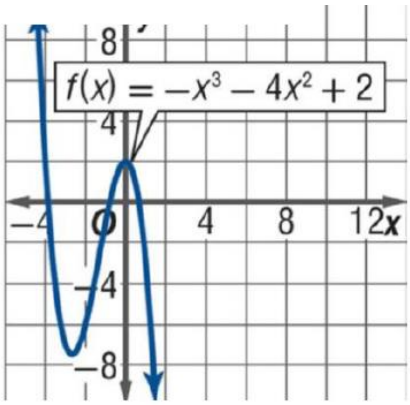

Multiply.

(39) $(a-5)^2$

a. $a^2-10a+25$ *b.* $a^2-5a+25$ c. $a^2-5a+10$

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(40) $(2x-3)(3x-5)$

a. $x^2-19x+15$ *b.* $6x^2-19x+15$ c. $6x^2+19x+15$

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Simplify the expression.

(41) $(7b^2+6b-7)-(4b^2-2)$

a. $3b^2+6b-9$ *b.* $3b^2+6b-5$ c. $7b^2+2b-5$ d. $11b^2+6b-5$

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(42) $(6a^2+5a+10)-(4a^2+6a+12)$

a. $2a^2-a-2$ *b.* $2a^2-a+22$ c. $2a^2+11a-2$ d. $2a^2+11a+22$

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(43) Divide.

$(5x^4 - 8x^3 + 3x^2 + 2) \div (x - 2)$

a. $5x^3 + 2x^2 + x + 2 + \frac{30}{x-2}$ b. $5x^3 + 2x^2 + 7x + 14 + \frac{30}{x-2}$

c. $5x^3 + 2x^2 + x + 2 + \frac{6}{x-2}$ d. $5x^3 + 2x^2 + 7x + 14 + \frac{6}{x-2}$

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Which is a factor of

(44) $x^3 - 3x + 2$

a. $x + 2$ *b.* $x - 2$ c. $x + 1$

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(45) $x^4 + 2x^3 - 8x - 16$

a. $x + 2$ *b.* $x - 2$ c. $x + 1$

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Write a polynomial function of least degree with integral coefficients that has the given zeros.

(46) $5, -2, -1$

a. $x^3 + 2x^2 - 13x + 10$ b. $x^3 + 2x^2 - 13x - 10$

c. $x^3 - 2x^2 - 13x - 10$ d. $2x^3 - x^2 - 13x - 10$

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(47) $-4, -3, 5$

a. $x^3 + 2x^2 + 23x + 60$ b. $x^3 + 2x^2 + 23x - 60$

c. $x^3 + 2x^2 - 23x + 60$ d. $x^3 + 2x^2 - 23x - 60$

(48) For each pair of functions, find $f \circ g$

$f = \{(-8,-4),(0,4),(2,6),(-6,-2)\}$, $g = \{(4,-4),(-2,-1),(-4,0),(6,-5)\}$

a. $(-4,4)$ *b.* $(-1,10)$ c. $(0,3)$ d. undefine

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(49) Given : $f(x) = x^2 + 1$ *and* $g(x) = x - 4$, *find* $[g \circ f](2)$

a. -1 *b.* 3 c. 5 d. 1

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Determine whether each pair of functions are inverse functions.

(50) $f(x) = 4x^2$, $g(x) = \frac{1}{2}\sqrt{x}$

a. Yes *b.* No

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(51) $f(x) = \frac{1}{3}x^2 + 1$, $g(x) = \sqrt{3x-3}$

a. Yes *b.* No

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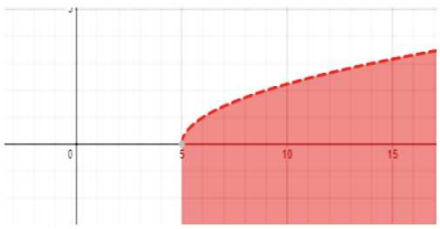
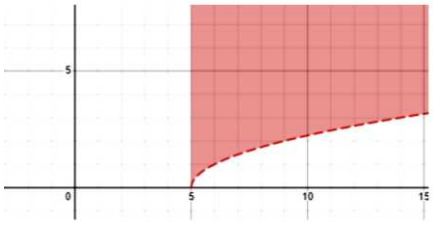
Graph inequality.

(52) $y < \sqrt{x-5}$

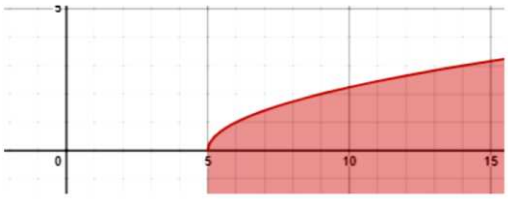
a.



b.



c.



Simplify.

(53) $\frac{\sqrt{5a^5}}{\sqrt{b^{13}}}$

a. $\frac{a^2\sqrt{5b}}{b^6\sqrt{b}}$ *b.* $\frac{a^3\sqrt{5b}}{b^6\sqrt{b}}$ c. $\frac{a^8\sqrt{5b}}{b^7\sqrt{b}}$

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(54) $\frac{6}{\sqrt{3}-\sqrt{2}}$

a. $6\sqrt{3}+6\sqrt{2}$ *b.* $6\sqrt{3}-6\sqrt{2}$ c. $3\sqrt{6}-6\sqrt{2}$

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Solve each equation.

(55) $\sqrt{3n+1}=5$

a. $n=8$ *b.* $n=5$ c. $n=7$ d. $n=-8$

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(56) $\sqrt{k-4}-1=5$

a. $k=40$ *b.* $k=30$ c. $k=-40$ d. $k=12$

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Please show your steps

Simplify by using division.

(57) $(n^2 + 7n + 10) \div (n + 5)$

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(58) $(d^2 + 4d + 3)(d + 1)^{-1}$

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Factor completely. If the polynomial is not factorable, write prime.

(59) $8c^3 - 27d^3$

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(60) $64x^4 + xy^3$

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Simplify.

(61) $\sqrt{2}+\sqrt{8}+\sqrt{50}$

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(62) $3\sqrt{5y}\,.\,8\sqrt{10yz}$

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(63) $2\sqrt{32a^3b^5}\,.\sqrt{8a^7b^2}$

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