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MPM2D Review

STATION 1

Factor completely.

a) $21x^2 - 7x$

b) $x^2 + x - 20$

c) $36m^2 - 169$

d) $2x^2 - 7xy - 15y^2$

e) $30a^2c^2 + 21a^2c^3 - 3ac^2$

f) $9x^2 - 48x + 64$

g) $6k(k - 8) + 7(k - 8)$

h) $18 - 21x + 3x^2$

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STATION 2

Solve.

$$2(3x - 1) - (y + 4) = -7$$

$$\frac{x}{2} - \frac{2}{3}y = \frac{7}{3}$$

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STATION 3

Determine the equation, in standard form, of the parabola with zeros at 5 and -8, and a maximum of 23.

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STATION 4

A quadratic has one of its zeros at -2, an axis of symmetry at x = -5 and a y-intercept of -32. Determine the equation of the quadratic relation in factored form. No decimals.

STATION 5

Determine the values of a and b for

$$x^2 - 5x - a = (x + 2)(x - b)$$

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STATION 6

Solve. Do not use decimals.

a) $5(x-4)+3=4x+1$

b) $-4(x-2)^2+9=0$

c) $7x(x+2)=3x^2-(6-3x)$

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STATION 7

Graph each of the following relations

a) $x = 6$

b) $y = \frac{2}{3}x - 4$

c) $y = 2(x - 3)^2 - 8$

d) $2x + 5y - 15 = 0$

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STATION 8

Complete the square and state the coordinates of the vertex of the relation $y = 7x^2 + 56x + 19$.

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STATION 9

Expand and simplify

a) $(3x - 4)(3x + 4)$

b) $(5x - 1)^2$

c) $3(x + 2)(5x - 4)$

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STATION 10

Determine the roots of $5x^2 + 9x - 13 = 0$. Round your answer to two decimal places, if necessary.

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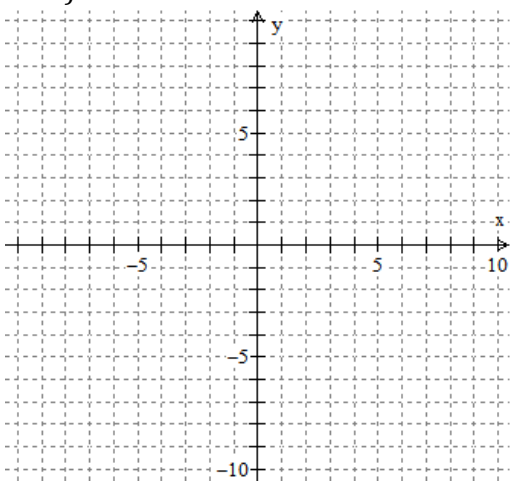
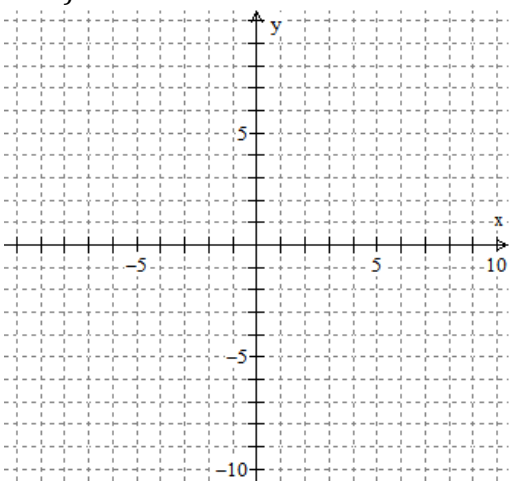
Answers for STATIONS

Station	Answers								CHECKED
1	a)	b)	c)	d)	e)	f)	g)	h)	
2									
3									
4									
5									
6	a)		b)		c)				
7	a & b) 				c & d) 				
8									
9	a)		b)		c)				
10									