Name:_____ Period:_____ Date_____ Ver. P

FoM10 - Chapter 3: Part 1 Practice Test – NO CALCULATOR SECTION

/10 Written Response: SHOW ALL WORK! REMEMBER UNITS!

1. a) Write the PRIME FACTORIZATION for the numbers (1 mark each)
(hint: use a factor tree)

36:_____

54:_____

b) What is the greatest common factor (GCF) of 36 and 54? *(1 mark)* _____

2. A square has an area of 25cm^2. What is the **perimeter** of the square? *(2 marks)*

Perimeter = _____

3. Expand: $5x(2x^2 - 4xy + 3y)$ *(1 mark)*

4. Expand and simplify: $(2x - 4)^2$ *(2 marks)*

5. Expand and simplify: $3x(x^2 - 2x + 5) - 2(x - 3)$ *(2 marks)*

Name: _____ **Class:** _____ **Date:** _____ **ID: P**

Chapter 3: Part 1 Practice Test

/10 Multiple Choice: Choose the BEST answer. Record your answer on the line.

____ 1. Write the prime factorization of 630.

a. $2 \cdot 3^2 \cdot 5 \cdot 7$ b. $2 \cdot 5 \cdot 7 \cdot 9$ c. $2 \cdot 5 \cdot 63$ d. $2 \cdot 3 \cdot 5 \cdot 7$

____ 2. Determine the greatest common factor of 72, 96, and 132.

a. 3168 b. 12 c. 6 d. 4

____ 3. What is the side length of the **smallest** square that could be tiled using a 6-cm by 15-cm tile? Assume the tiles cannot be cut.

a. 10 cm b. 30 cm c. 90 cm d. 3 cm

____ 4. Determine the side length of this square.

a. 15.5 cm b. 413.44 cm c. 61 cm d. 930.25 cm

____ 5. A cube has volume 13 824 cm^3. What is the surface area of the cube?

a. 24 cm^2 b. 3456 cm^2 c. 9216 cm^2 d. 110 592 cm^2

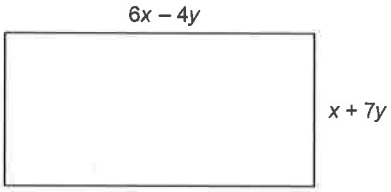
____ 6. Expand and simplify: $(5m-7n)^2$

a. $25m^2-70mn+49n^2$
b. $25m^2-35mn+49n^2$
c. $25m^2+49n^2$
d. $25m^2-49n^2$

____ 7. Expand and simplify: $(3d-1)(5d^2+12d-4)$

a. $15d^3+31d^2-24d+4$
b. $15d^3+36d^2-12d+4$
c. $15d^3+41d^2+4$
d. $15d^3+31d^2+4$

____ 8. Which polynomial, written in simplified form, represents the area of this rectangle?



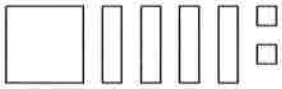
a. $6x^2-38xy-28y^2$
b. $12x^2+76xy-56y^2$
c. $6x^2+23xy-28y^2$
d. $6x^2+38xy-28y^2$

____ 9. Expand and simplify: $(5c+2)(2c-7)+3(-4c+3)(7c-5)$

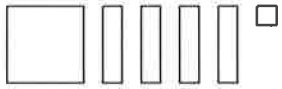
a. $-74c^2+92c-59$
b. $-74c^2+34c-59$
c. $-74c^2-34c-29$
d. $-74c^2-34c-59$

____ 10. Which set of algebra tiles represents x^2+4x+2?

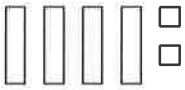
a.



c.



b.



d.