Math 9
Section 5.5 Part 1 - Multiplying Polynomials by a Constant
Section 5.6 Part 1 - Multiplying Polynomials by a Monomial

Name: $\qquad$
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Learning Outcomes Covered:
5G: I can multiply a polynomial by a monomial.
CONTENT Assessment Questions:

1. Multiply. Sketch the algebra tiles tog.
a) $2(3 b)$

b) $-2(6 h)$

c) $-3\left(2 x^{2}\right)$ $=-6 x^{2}$

2. Write the multiplication sentence modelled by the set of algebra tiles.


$$
(x)(2 x+3)=2 x^{2}+3 x
$$

3. Write the multiplication sentence modelled by each rectangle.
a)

$2 d(3 d+4)$
4. Determine each product.
a) $4(3 a+2)$
$=12 a+8$
c) $2\left(4 c^{2}-2 c+3\right)$
$=8 c^{2}-4 c+6$
b)

$y(4 y+6)$
b)
b) $-3\left(-5 m^{2}+6 m+7\right)$
$=15 m^{2}-18 m-21$
d) $\left(-2 n^{2}+n-1\right)(6)$
$=-12 n^{2}+6 n-6$
5. Determine each product.
a)

$=15 c^{2}+6 c$
c) $5 p(-5-2 p)$
$=-25 P^{P}-10 p^{2}$
b)

d)
(-1-10r)(-r)
$=1 r+10 r^{2}$

CURRICULAR COMPETENCIES Questions:

1. Here is a student's solution for a multiplication question.

$$
\begin{aligned}
& \left(-5 k^{2}-k-3\right)(-2) \\
& =-2\left(5 k^{2}\right)-2(k)-2(3) \\
& =-10 k^{2}-2 k-6
\end{aligned}
$$

a) Explain why the student's solution is incorrect.

$$
\begin{aligned}
& \text { Negative signs were not included } \\
& \text { for } k^{2}, k \& 3
\end{aligned}
$$

b) What is theerrectanswer? Show your work.

$$
\begin{aligned}
& \left(-5 k^{2}-k^{2}-3(-2)\right. \\
& =10 k^{2}+2 k+6
\end{aligned}
$$

ONGOING LEARNING ACTIVITIES:
CORE: Curricular Competencies: Page 246: 12; Page 255: 13, 14
Content: Page 246: 5, 9, 11bcf, 15acf, 22abd;
Page 255: 4, 6, 11ac, 12bdh, 20abf
ADVANCED: Page 248: 24; Page 257: 19, 22

