



Check you homework
from the back of the textbook

Topic: Section 5.5_Multiplying & Division Of Polynomials

Homework: Page 246-247

Check

3. Write the multiplication sentence modelled by each set of algebra tiles.

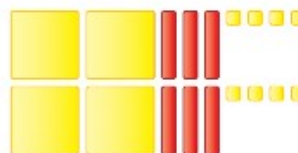


5. a) Which of these products is modelled by the algebra tiles below?

i) $2(-2n^2 + 3n + 4)$

ii) $2(2n^2 - 3n + 4)$

iii) $-2(2n^2 - 3n + 4)$



6. Which of these quotients is modelled by the algebra tiles below?

a) $\frac{8t - 12}{-4}$

b) $\frac{-8t - 12}{4}$

c) $\frac{8t - 12}{4}$



7. a) Multiply.

i) $3(5r)$

iii) $(5r)(3)$

v) $-5(-3r)$

ii) $-3(5r)$

iv) $-5(3r)$

vi) $(-3r)(5)$

8. a) Divide.

i) $\frac{12k}{4}$


iii) $\frac{12k}{-4}$

ii) $(-12k) \div 4$

iv) $(-12k) \div (-4)$

9. Write the multiplication sentence modelled by each rectangle.

a) $3v^2 + 2v + 4$



2

b) 5



$m^2 + 3$

11. Use algebra tiles to determine each product.

Sketch the tiles you used. Record the product symbolically.

a) $7(3s + 1)$

b) $-2(-7h + 4)$

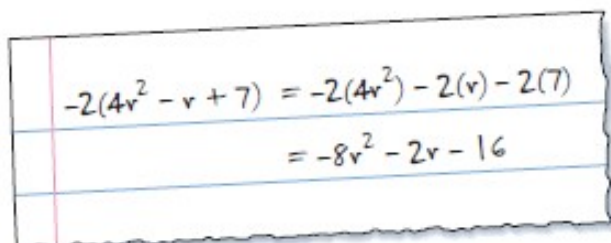
c) $2(-3p^2 - 2p + 1)$

d) $-6(2v^2 - v + 5)$

e) $(-w^2 + 3w - 5)(3)$

f) $(x^2 + x)(-5)$

12. Here is a student's solution for this question:



A photograph of a student's handwritten work on lined paper. The work shows the distribution of -2 across the terms of the expression (4r^2 - r + 7). The first line is -2(4r^2 - r + 7) = -2(4r^2) - 2(r) - 2(7). The second line is = -8r^2 - 2r - 16.

$$\begin{aligned} -2(4r^2 - r + 7) &= -2(4r^2) - 2(r) - 2(7) \\ &= -8r^2 - 2r - 16 \end{aligned}$$

Identify the errors in the solution, then write the correct solution.

13. Use algebra tiles to determine each quotient. Sketch the tiles you used. Record the product symbolically.

a) $\frac{12p - 18}{6}$

c) $\frac{5h^2 - 20h}{5}$

e) $\frac{-8a^2 + 4a - 12}{4}$

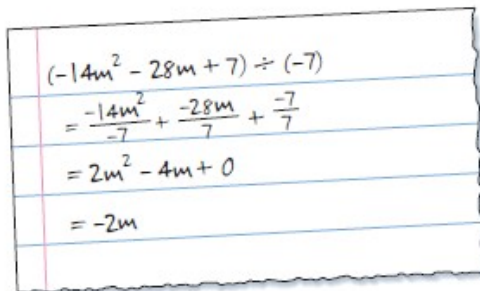
b) $\frac{-6q^2 - 10}{2}$

d) $\frac{4r^2 - 16r + 6}{2}$

f) $\frac{6x^2 + 3x + 9}{3}$

14. Here is a student's solution for this question:

Divide: $(-14m^2 - 28m + 7) \div (-7)$



The student's solution is written on lined paper and shows the following steps:

$$\begin{aligned} & (-14m^2 - 28m + 7) \div (-7) \\ &= \frac{-14m^2}{-7} + \frac{-28m}{7} + \frac{7}{7} \\ &= 2m^2 - 4m + 0 \\ &= -2m \end{aligned}$$

Identify the errors in the solution, then write the correct solution.

15. Use any strategy to determine each product.

a) $-3(-4u^2 + 16u + 8)$

b) $12(2m^2 - 3m)$

c) $(5t^2 + 2t)(-4)$

d) $(-6s^2 - 5s - 7)(-5)$

e) $4(-7y^2 + 3y - 9)$

f) $10(8n^2 - n - 6)$

16. Use any strategy to determine each quotient.

a) $\frac{24d^2 - 12}{12}$

b) $\frac{8x + 4}{4}$

c) $\frac{-10 + 4m^2}{-2}$

d) $(25 - 5n) \div (-5)$

e) $(-14k^2 + 28k - 49) \div 7$

f) $\frac{30 - 36d^2 + 18d}{-6}$

g) $\frac{-26c^2 + 39c - 13}{-13}$

18. Assessment Focus

a) Determine each product or quotient.

i) $(3p)(4)$ ii) $\frac{-21x}{3}$

iii) $(3m^2 - 7)(-4)$

iv) $\frac{-2f^2 + 14f - 8}{2}$

v) $(6y^2 - 36y) \div (-6)$

vi) $(-8n + 2 - 3n^2)(3)$

23. Determine each quotient.

a) $(3n^2 - 12mn + 6m^2) \div 3$

b) $\frac{-6rs - 16r - 4s}{-2}$

c) $\frac{10gh - 30g^2 - 15h}{5}$

d) $(12t^2 - 24ut - 48t) \div (-6)$

22. Determine each product.

a) $2(2x^2 - 3xy + 7y^2)$

b) $-4(pq + 3p^2 + 3q^2)$

c) $(-2gh + 6h^2 - 3g^2 - 9g)(3)$

d) $5(-r^2 + 8rs - 3s^2 - 5s + 4r)$

e) $-2(4t^2 - 3v^2 + 19tv - 6v - t)$