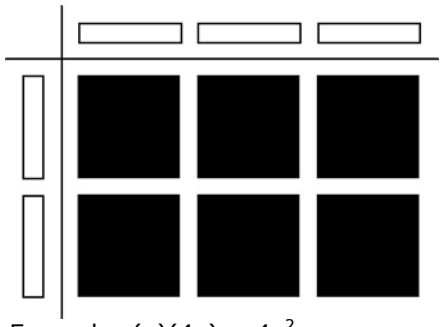
Chapter 7 BLM Answers

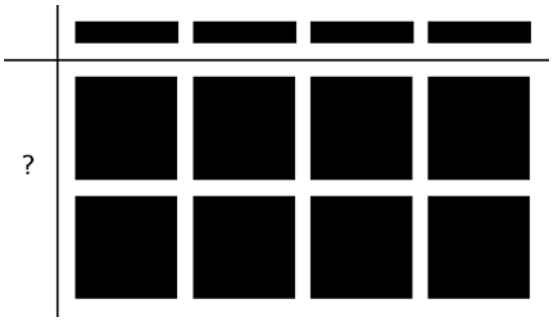
BLM 7–1 Chapter 7 Problems of the Week
1. a) \$360 **b)** \$13.50 **c)** $n - 40$
d) $360 + 13.5(n - 40)$
2. a) Circle with radius x: πx^2;
Circle with radius $2x$: $\pi(2x)^2$ or $4\pi x^2$
b) $\frac{\pi x^2}{\pi(2x)^2}$ **c)** $\frac{\pi x^2}{\pi(2x)^2} = \frac{\pi x^2}{\pi 4x^2} = \frac{1}{4}$

BLM 7–3 Section 7.1 Extra Practice
1. a) $(2x)(-2x) = -4x^2$ **b)** $(2y)(3x) = 6xy$
2. Shaded tiles are positive, and white tiles are negative.
a) Example: $6x^2$

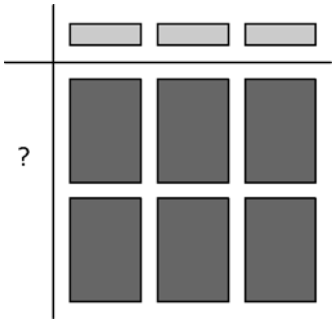


b) Example: $(x)(4x) = 4x^2$

3. a) $-8x^2$ **b)** $21y^2$ **c)** $-15xy$ **d)** $-1.2m^2$ **e)** $8n^2$
f) $8.4y^2$
4. a) $\frac{4x^2}{2x} = 2x$ **b)** $\frac{-6x^2}{3x} = -2x$
5. a) Example: $2x$

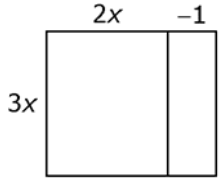


b) Example: $\frac{6xy}{3y} = 2x$

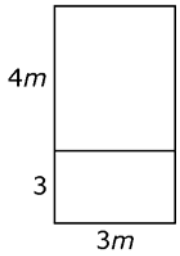


6. a) $-2x$ **b)** $5x$ **c)** 3 **d)** $\frac{3}{2}y$ or $1\frac{1}{2}y$ **e)** $-7.1m$
f) $-5.1x$
7. $(20.4x^2)$ cm^2
8. $(3.2x)$ m
9. a) $(4x)$ m **b)** Diameter of circle = $4x$ m;
radius = $2x$ m; Area of circle = $\pi(2x)^2 = (\pi 4x^2)$ m^2

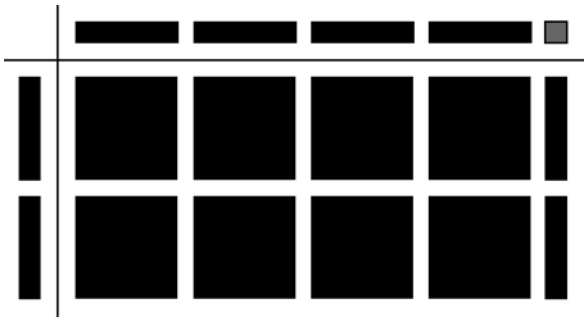
BLM 7-4 Section 7.2 Extra Practice
1. a) $12x^2 + 20x$ **b)** $10.5m^2 + 35m$
2. a) $6x^2 - 3x$



b) $12m^2+9m$



3. a) $(x)(2x + 3) = 2x^2 + 3x$
b) $(2x)(2x + 3) = 4x^2 + 6x$
4. a) $8x^2 + 2x$



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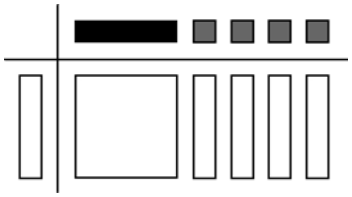
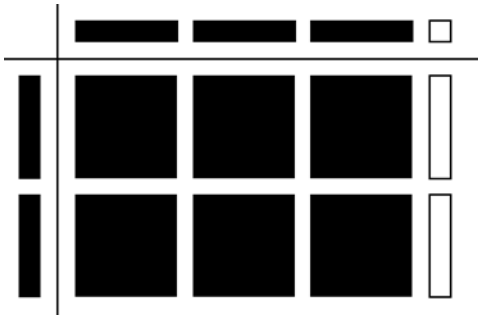
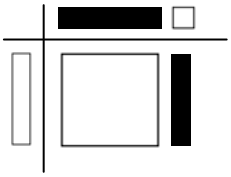
b) $(-x)(x + 4) = -x^2 - 4x$



c) $(2x)(3x - 1) = 6x^2 - 2x$



d) $(-x)(x - 1) = -x^2 + 1$



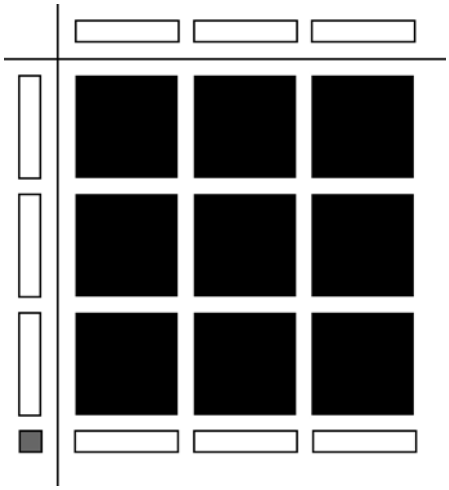
5. a) $(5m)(2m) + (5m)(3) = 10m^2 + 15m$
b) $(-n)(n) + (-n)(1) = -n^2 - n$
c) $(1.3x)(2x) - (1.3x)(5) = 2.6x^2 - 6.5x$
d) $(-m)(3m) + (2)(3m) = -3m^2 + 6m$
e) $(4.1k)(-3k) - (5.3)(-3k) = -12.3k^2 + 15.9k$
f) $(-5b)(1.1b) + (-5b)(-2) = 5.5b^2 + 10b$
6. a) $12m^2 + 3m$ **b)** $-8x^2 + 12x$
c) $8.4n^2 - 29.4n$ **d)** $-6m^2 - 36m$
7. a) $l = 5x + 3$
b) $A = (5x)(5x + 3) = 25x^2 + 15x$
c) The area of the cement pad is 130 m².

BLM 7–5 Section 7.3 Extra Practice

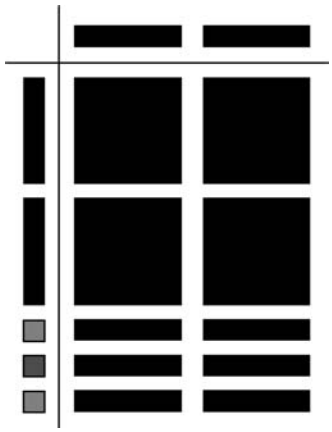
1. a) $\frac{4xy + 2x}{2x} = 2y + 1$

b) $\frac{6x^2 - 6x}{3x} = 2x - 2$

2. a) $-3x + 1$

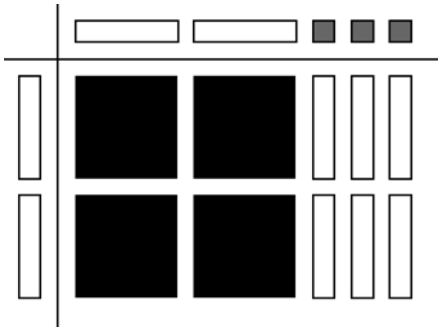


b) $\frac{4x^2 + 6x}{2x} = 2x + 3$



3. a) $\frac{6x^2 - 3x}{3x} = 2x - 1$ **b)** $\frac{4xy - 6x}{2x} = 2y - 3$

4. a) $-2x + 3$



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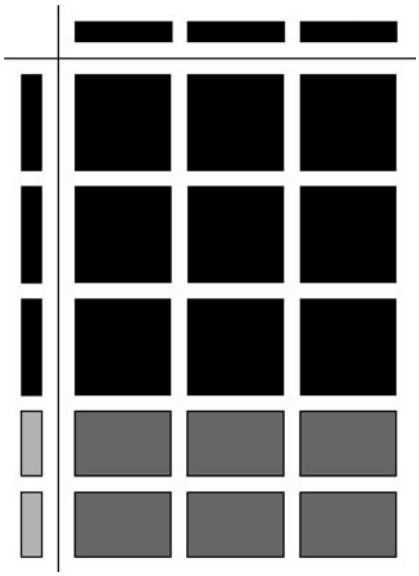
b) $\frac{9x^2 + 6xy}{3x} = 3x + 2y$



5. a) $3x - 4$ **b)** $4m + 5n$
c) $2k - 1$ **d)** $-2 - 3n$
e) $0.7d + 0.9k - 0.8$ **f)** $-3c^2 + 4c - 2$
6. You will require $(x + 4)$ pictures to cover the bulletin board.

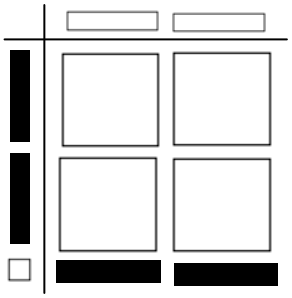
7. a) Length $= \frac{15x^2 + 45x}{3x} = (5x + 15)$ m

b) Perimeter $= 2(3x) + 2(5x + 15)$
$= 6x + 10x + 30$
$= 16x + 30$

c) $\frac{16x + 30}{2} = 8x + 15$

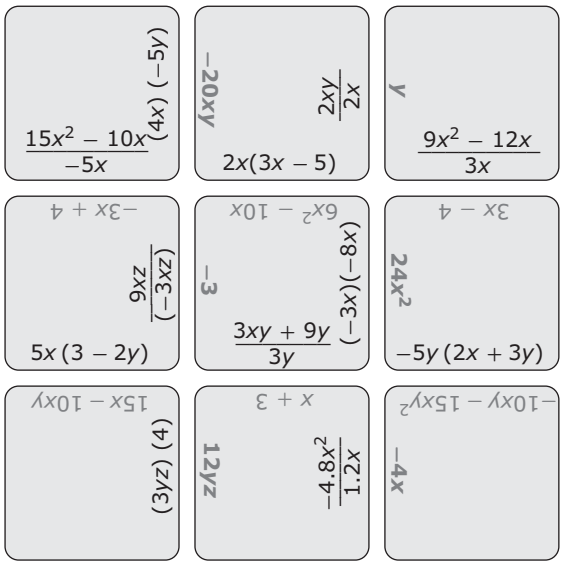
BLM 7–6 Chapter 7 Test
1. A **2.** B **3.** B **4.** D
5. $-15.3xy$ **6.** $2.5x$ **7.** $4x^2 - 30x$
8. a) $15x^2$ **b)** $8xy - 10y$
9. a) $9x$ **b)** $-8 + 2x$

10. $-4x^2 + 2x$



11. a) Step 2
b) $(5)(7)(x)(x) + (5)(-2)(x) = 35x^2 - 10x$
12. a) $8x^2 + 28x$ **b)** $24x^2 + 84x$ **c)** $2x + 7$

BLM 7–7 Sample Polynomial Puzzle



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