

7.8 DAY TWO Factoring Completely by Grouping

1) 7.7 Concept Check



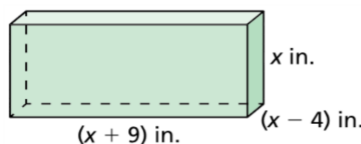
2) Grade 7.8 DAY ONE WS

3) 7.8 DAY TWO ENTRY TICKET

4) 7.8 Book Assignment

Entry Ticket

- Factor $x^2 + 15y + 5x + 3xy$ by (grouping). GCF
 $(x^2 + 5x) + (15y + 3xy) \rightarrow x(x+5) + 3y(5+x) \checkmark$
- Factor $3x^3 - 48x^3$ completely. GCF
 $3x^3(x^2 - 16) \rightarrow 3x^3(x+4)(x-4)$
 $a=x \quad b=4$
- Solve $6x^3 - 30x^2 = 36x$. $=0$; GCF ; ZPP
 $6x^3 - 30x^2 - 36x = 0 \quad x|x \quad 6x(x+1)(x-6) = 0$
 $6x(x^2 - 5x - 6) = 0 \quad \frac{-1 \pm 6}{2} \quad (x=0, -1, 6)$
- A box in the shape of a rectangular prism has a volume of 180 cubic inches. The dimensions of the box in terms of its height are shown. Find the length, width, and height of the box.



$$15 \text{ in} \times 2 \text{ in} \times 6 \text{ in}$$

$$V = lwh$$

$$180 = (x+9)(x-4)(x)$$

$$180 = (x)(x^2 + 5x - 36)$$

$$0 = (x^3 + 5x^2 - 36x - 180)$$

$$0 = x^2(x+5) - 36(x+5)$$

$$0 = (x^2 - 36)(x+5)$$

$$0 = (x+6)(x-6)(x+5)$$

$$x+6=0 \quad x-6=0 \quad x+5=0$$

$$x = -6, 6, -5 \quad \boxed{x=6}$$

7.8 DAY TWO ASSIGNMENT

Pg. 407:

A: 7, 9 19, 21 25, 27, 29, 32, 33, 35, 40 – 46 (e), 52, 56

B: 1, 5 – 19 (o), 25 – 35 (o), 40 – 44 (e), 50, 54

C: 1, 3 – 37 (o), 42, 44, 50, 54