

Ch. 8 Word Problem Test Review

8.2
pg 495
#27

$$S^2 - \pi r^2$$
$$(15x)^2 - \pi(5x)^2$$
$$225x^2 - \pi 25x^2 \rightarrow \text{FACTOR}$$

$$25x^2(9 - \pi) \text{ units}^2$$

*DO

NOT

#28

$$\pi r^2 - S^2$$
$$\pi(6x)^2 - (3x)^2$$
$$\pi 36x^2 - 9x^2 \rightarrow \text{FACTOR}$$

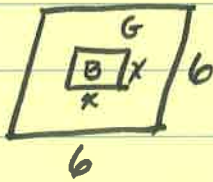
$$9x^2(4\pi - 1) \text{ units}^2$$

FORGET

LABELS

8.4

pg. 508
#19



$$S^2 - s^2$$
$$6^2 - x^2$$
$$36 - x^2 \text{ in}^2$$

8.5
pg. 515
#30

$$d^2 - 7d - 18$$
$$d^2 - 9d + 2d - 18$$
$$(d^2 - 9d) + (2d - 18)$$
$$d(d - 9) + 2(d - 9)$$

$$(d + 2)(d - 9) \text{ units}$$

Factors of AC (-18) that
have a sum of B (-7)

8.5

pg. 515
#43

$$A = bh$$

$$x^2 - 14x + 24 = (x-2)h$$

FACTOR \rightarrow

$$\frac{(x-2)(x-12)}{(x-2)} = \frac{(x-2)h}{(x-2)}$$

$$x - 12 = h$$

height = $x - 12$ units

8.6

pg. 521
#20

$$8x^2 + 30x + 7$$

$$8x^2 + 28x + 2x + 7$$

$$(8x^2 + 28x) + (2x + 7)$$

$$4x(2x + 7) + 1(2x + 7)$$

$(4x + 1)(2x + 7)$ units

8.8

pg. 532

#28

$$V = 3y^3 + 14y^2 + 8y$$

$$y(3y^2 + 14y + 8)$$

$$y(3y^2 + 12y + 2y + 8)$$

$$y(3y(y+4) + 2(y+4))$$

$y, (y+4), (3y+2)$
units

#30

$$V = 6x^3 + 38x^2 - 28x$$

$$2x(3x^2 + 19x - 14)$$

$$2x(3x^2 + 21x - 2x - 14)$$

$$2x(3x(x+7) - 2(x+7))$$

$2x, (x+7), (3x-2)$
units