

Do Now

Simplify each expression

1) $(6x^2 + 2x - 8) - (3x^2 - 4x + 3)$

$$\begin{array}{r} 6x^2 + 2x - 8 - 3x^2 + 4x - 3 \\ \hline 3x^2 + 6x - 11 \end{array}$$

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

$$\begin{array}{r} -x^3 + x^2 - 2x \end{array}$$

3) $7 + x^2(2x - 8) + 4x^3$

$$\begin{array}{r} 7 + 2x^3 - 8x^2 + 4x^3 \end{array}$$

$$\begin{array}{r} 6x^3 - 8x^2 + 7 \end{array}$$

Mar 8-9:44 AM

HW Answers

1. $4a^3 + 3a^2$

7. $18b^2 + 2b + 8$

2. $3h^5 - 5h^3$

8. $12n^3 + 5n^2 - 19n$

3. $x^3 + 2x^2 - 5x$

9. $6m^2 + 6m - 3$

4. $-3n^3 - 6n^2$

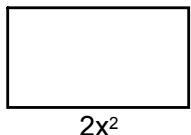
10. $28x^2 - 6x - 12$

5. $-2c^5 + 4c^4 - 10c^3$

6. $2x^3y - 5xy^2$

Mar 16-10:17 AM

1)



$$6x - 12$$

$$2x^2$$

A. Find the Area of the rectangle

$$\begin{aligned} A &= l \cdot w \\ A &= 2x^2(6x - 12) \\ A &= 12x^3 - 24x^2 \end{aligned}$$

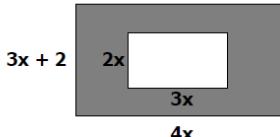
B. Find the Perimeter of the rectangle if $x = 3$

$$\begin{array}{c} \text{Diagram of a rectangle with side lengths labeled: } \\ \text{Top: } 6x - 12 \\ \text{Left: } 2x^2 \\ \text{Right: } 6(3) - 12 \\ \text{Bottom: } 2(3)^2 \\ \text{Bottom: } 2(9) \\ \text{Bottom: } 18 \end{array}$$

$$\begin{aligned} P &= 6 + 6 + 18 + 18 \\ P &= 48 \end{aligned}$$

Mar 6-6:34 AM

2)



A) Find the area of the larger rectangle

$$\begin{array}{ll} \text{Diagram of a rectangle with side lengths labeled: } & A = l \cdot w \\ \text{Top: } 3x+2 & A = 4x(3x+2) \\ \text{Bottom: } 4x & A = 12x^2 + 8x \end{array}$$

B) Find the area of the smaller rectangle

$$\begin{array}{ll} \text{Diagram of a rectangle with side lengths labeled: } & 2x(3x) = A \\ \text{Top: } 2x & \\ \text{Bottom: } 3x & \\ \text{Area: } 6x^2 & \end{array}$$

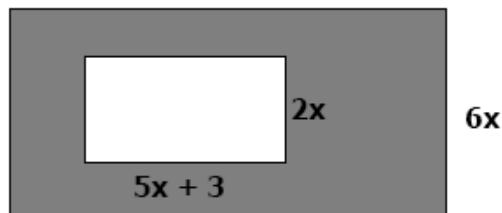


C) Find the area of the shaded region

$$\begin{aligned} \text{Shaded} &= \text{Larger} - \text{Smaller} \\ &= 12x^2 + 8x - (6x^2) \\ &= 12x^2 + 8x - 6x^2 \\ &= 6x^2 + 8x \end{aligned}$$

Mar 9-6:49 AM

4) Find the area of the shaded region



Smaller
 $2x(5x+3)$

$$10x^2 + 6x$$

$$8x - 1$$

Large

$$6x(8x-1)$$

$$48x^2 - 6x$$

$$48x^2 - 6x - (10x^2 + 6x)$$

$$48x^2 - 6x - 10x^2 - 6x$$

$$38x^2 - 12x$$

Sep 19 10:06 AM