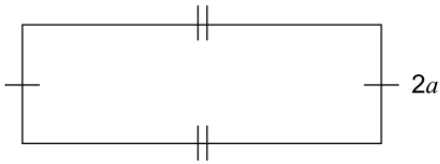

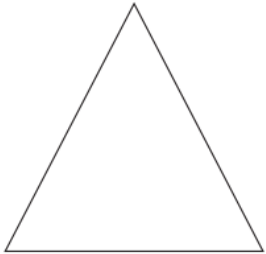


Polynomials – Multiple Choice Questions

<p>Which of the following is equivalent to the expression below?</p> $(4x - 5) + (2x + 1)$ <p>a $2x - 6$</p> <p>b $2x - 4$</p> <p>c $6x - 6$</p> <p>d $6x - 4$</p>	<p>The sum of the perimeters of two shapes is represented by $13x + 4y$.</p> <p>The perimeter of one shape is represented by $4x - 2y$.</p> <p>Which expression represents the perimeter of the other shape?</p> <p>a $9x + 2y$</p> <p>b $9x + 6y$</p> <p>c $17x + 2y$</p> <p>d $17x + 6y$</p>
<p>A rectangular field has a perimeter of $(10a - 6)$ metres and a width of $2a$ metres.</p> <div style="text-align: center;">  </div> <p>Which expression represents the length of this field?</p> <p>A $8a - 6$</p> <p>B $12a - 6$</p> <p>C $3a - 3$</p> <p>D $3a^2 - 3$</p>	<p>A square and an equilateral triangle are pictured below.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>$(5x + 3)$</p> </div> <div style="text-align: center;">  <p>$(7x - 1)$</p> </div> </div> <p>If the square and the triangle have the same perimeter, what is the value of x?</p> <p>a 2</p> <p>b 4</p> <p>c 9</p> <p>d 15</p>
<p>Which of the expressions below is equivalent to $3(4x - 5) - 7(9x - 2)$?</p> <p>a $-51x - 1$</p> <p>b $-51x - 3$</p> <p>c $-51x - 7$</p> <p>d $-51x - 29$</p>	<p>Which of the following is a simplified form of the expression $4(5x - 8) - 3(2x - 7)$?</p> <p>a $14x - 11$</p> <p>b $14x - 53$</p> <p>c $26x - 11$</p> <p>d $26x - 53$</p>

Which of the following represents the expression $2(3x + 4) + 3(x - 1)$ in a simplified form?

- a $9x + 3$
- b $9x + 5$
- c $8x + 8$
- d $8x + 11$

What is the value of $5x^3y^2$ when $x = 2$ and $y = 4$?

- a 240
- b 320
- c 480
- d 640

Consider the expression below.

$$3x^2(5x^2 - 2x + 1)$$

Which of the following is equivalent to this expression?

- a $8x^2 - 2x + 1$
- b $8x^2 + x + 4$
- c $15x^4 - 2x + 1$
- d $15x^4 - 6x^3 + 3x^2$

The volume of a rectangular prism is represented by $12x^3$. The height is represented by $3x$.

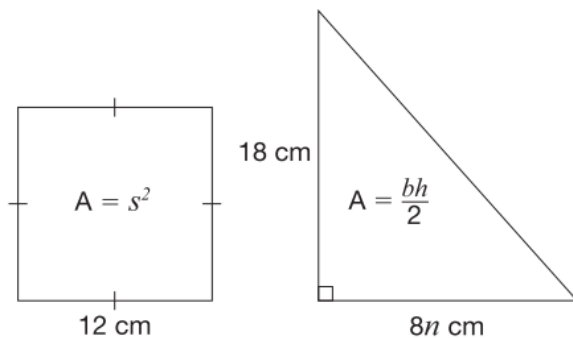
Which of the following represents the area of the base?

Hint:

$$V = (\text{area of base})(\text{height})$$

- a $4x^2$
- b $4x^3$
- c $9x^2$
- d $9x^3$

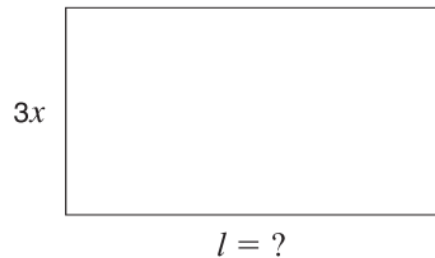
The square and the triangle below have the same area.



What is the value of n ?

- a 1
- b 2
- c 8
- d 16

The area of the rectangle shown below is $6xy^2$ square units.

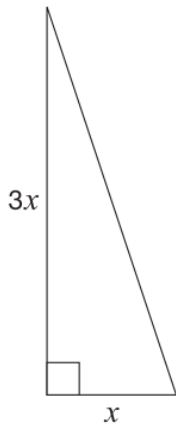


Hint: $A = lw$

If the width is $3x$ units, which expression represents the length of the rectangle?

- a $2xy^2$ units
- b $2y^2$ units
- c $3xy^2$ units
- d $3y^2$ units

Luke designs a garden in the shape of a right triangle as shown below.



The total area of the garden is 96 m^2 .

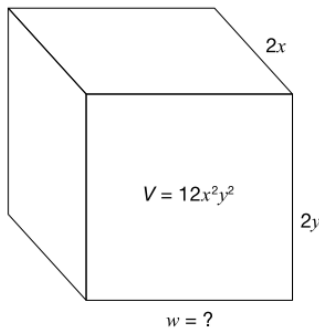
Hint:

$$A = \frac{1}{2}bh$$

Which is closest to the value of x in the diagram?

- a 6 m
- b 8 m
- c 32 m
- d 64 m

A box with a volume of $12x^2y^2$ is shown below.

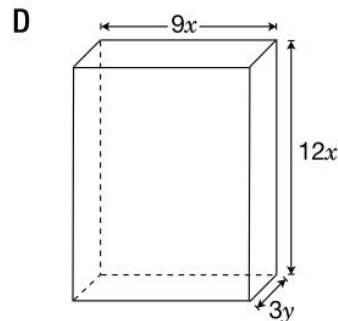
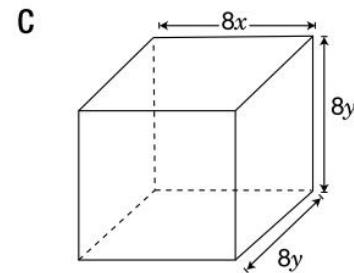
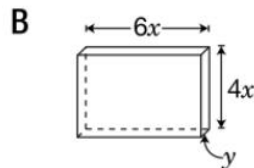
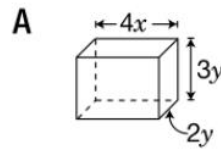


Hint: $V = lwh$

What is the width of the box?

- a $2xy$
- b $3xy$
- c $4x^3y^3$
- d $8x^3y^3$

Which of the following fish tanks would contain an amount of water represented by the expression $V = 24x^2y$ when completely full?



What exponent goes in the box to make the following equation true?

$$\frac{x^{\square}x^6}{x^2} = x^{12}$$

- a 9
- b 8
- c 4
- d 3

<p>What is the value of the expression x^2 when $x = \frac{4}{5}$?</p> <p>a $\frac{8}{5}$</p> <p>b $\frac{8}{10}$</p> <p>c $\frac{16}{5}$</p> <p>d $\frac{16}{25}$</p>	<p>What is the value of $6x^2$ when $x = \frac{1}{3}$?</p> <p>a $\frac{2}{9}$</p> <p>b $\frac{2}{3}$</p> <p>c 2</p> <p>d 4</p>
<p>What is the value of $(x^2)^3$ when $x = \frac{1}{2}$?</p> <p>a $\frac{1}{4}$</p> <p>b $\frac{1}{12}$</p> <p>c $\frac{1}{32}$</p> <p>d $\frac{1}{64}$</p>	<p>What value of m makes the equation $\frac{6a^m}{2a^3} = 3a^5$ true?</p> <p>a 2</p> <p>b 8</p> <p>c 15</p> <p>d 18</p>
<p>The expression below can be simplified.</p> $\frac{(x^2y)^3}{(xy)^2}$ <p>Which of the following shows the expression in its simplest form?</p> <p>a x^4y</p> <p>b x^4</p> <p>c xy</p> <p>d x^3y</p>	