

Review and EQAO Practice for Chapter 3 – Polynomials

2017

- 1 Which is a simplified form of this expression?

$$\frac{x^8(x^6)}{x^4}$$

- a x^8
- b x^{10}
- c x^{12}
- d x^{18}

- 3 Which of the following is a simplified form of

$$(-2m + 3) - (5m - 6)?$$

- a $3m - 3$
- b $3m + 9$
- c $-7m - 3$
- d $-7m + 9$

2016

- 1 A ball is dropped from a height of 25 m. The ball's height, H , in metres, after n bounces is represented by the equation below.

$$H = 25 \left(\frac{1}{2}\right)^n$$

What is the height of the ball after 4 bounces?

- a $\frac{25}{16}$ m
- b $\frac{25}{8}$ m
- c $\frac{25}{4}$ m
- d $\frac{25}{2}$ m

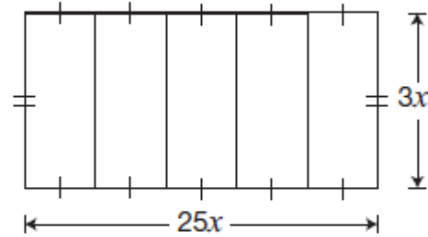
- 4 Which of the following is equivalent to

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

- a $9x - 13$
- b $9x + 4$
- c $21x - 13$
- d $21x + 4$

2015

- 1 A rectangle is divided into 5 equal sections as pictured below.



Which of the following represents the area of one section?

- a $8x$
- b $8x^2$
- c $15x$
- d $15x^2$

- 2 The table below contains five expressions.

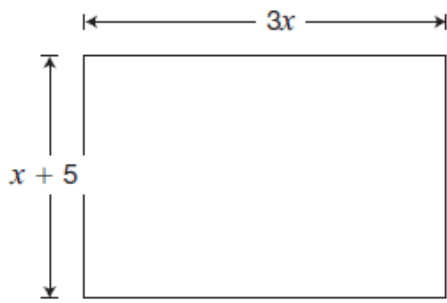
$p \times p \times p \times p \times p \times p$
$p^2 \times p^2 \times p^2$
$p^2 \times p^3$
p^5
p^6

How many of these expressions are equivalent to $(p^2)^3$?

- a 1
- b 2
- c 3
- d 4

2015

- 3** A rectangle is shown below with algebraic expressions for its length and width in centimetres.



Which expression represents the area of the rectangle in cm^2 ?

- a $4x + 5$
- b $8x + 10$
- c $3x^2 + 5$
- d $3x^2 + 15x$

- 4** What is the solution to the equation below?

$$\frac{2}{3}x - 4 = 20$$

- a $x = 12$
- b $x = 16$
- c $x = 24$
- d $x = 36$

2014

- 2** What goes in the \square to complete the equation below?

$$(8x^3)(\square) = 24x^{12}$$

- a $3x^9$
- b $3x^4$
- c $16x^9$
- d $16x^4$

- 5** What is the value of x in the equation

$$-4(2x - 1) = 36?$$

- a -4
- b $-\frac{35}{8}$
- c $-\frac{37}{8}$
- d -5

- 11** What is the value of P in the equation below when $r = -7$?

$$P = 4 - 2r$$

- a -14
- b -10
- c 14
- d 18

2013

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

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

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

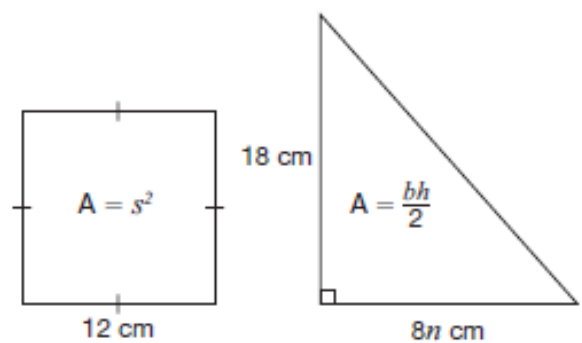
$$\frac{x^{\square}x^6}{x^2} = x^{12}$$

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

4 Which of the following is a simplified form of the expression $4(5x - 8) - 3(2x - 7)$?

- a $14x - 11$
- b $14x - 53$
- c $26x - 11$
- d $26x - 53$

5 The square and the triangle below have the same area.



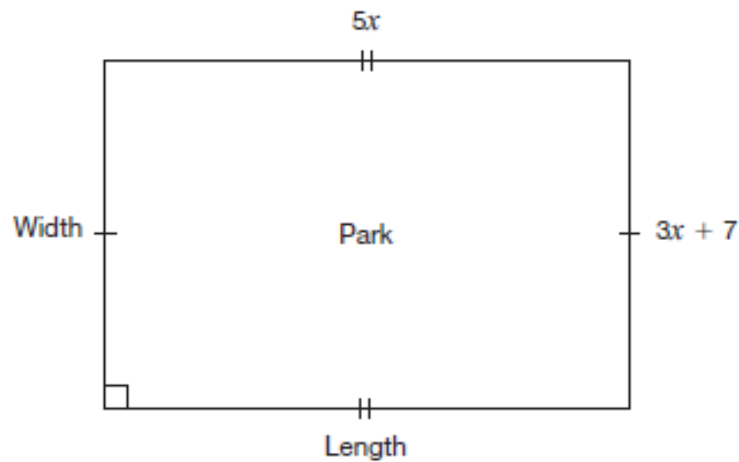
What is the value of n ?

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

2017

9 Walking Around the Park

A park in the shape of a rectangle is pictured with algebraic expressions representing its length and width, in metres.



The perimeter of the park, P , can be determined using the equation

$$P = 2l + 2w.$$

Determine an equation to represent the perimeter of the park using the given sides.

$$P = \underline{\hspace{10cm}}$$

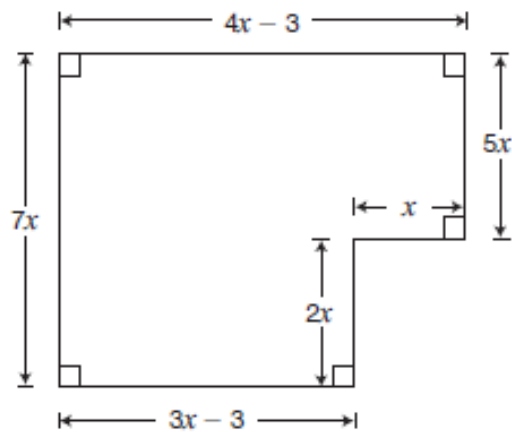
The perimeter of the park is 350 m.

Determine the length of the park. Show your work.

2016

9 Floored Areas

The diagram of the floor shown below has algebraic expressions for the lengths of its sides, in metres.



Determine an unsimplified expression for the total area of the floor, A , in m^2 .

$$A = \underline{\hspace{15cm}}$$

Simplify your expression fully. Show your work.