

# ALBERTA DISTANCE LEARNING CENTRE

# Mathematics 30-1

**MAT3791**

## Workbook 6.2

| Student's Questions and Comments |
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|-----------------------------|
| <b>FOR STUDENT USE ONLY</b> |
| <b>Student Name:</b>        |
| _____                       |

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|-------------------|--|
| Assigned to       |  |
| Marked by         |  |
| Date received     |  |

## Summary

|                                |                                  |             |         |
|--------------------------------|----------------------------------|-------------|---------|
|                                | Marks Earned                     | Total Marks | Percent |
| Practice 6.2A                  | <b>I have ____ /8 and ____ %</b> |             |         |
| Explore Your Understanding 6.2 |                                  |             |         |

**Teacher's Comments:**

**Teacher's Signature**

## CANADIAN CATALOGUING IN PUBLICATION DATA

MAT3791  
Mathematics 30-1  
ISBN: 978-1-927090-09-1  
Workbook 6.2

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Barrhead, Alberta Canada T7N 1P4


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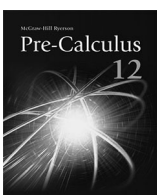
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## Explore Your Understanding Assignment 6.2

This assignment includes 6 marks. You are expected to complete **5 marks** worth of work. If you complete more than this, all completed questions will be used to assign a grade. For example, if you complete all 6 marks worth of work, your assignment total will be 6 instead of 5. You can also complete a question and label it “DO NOT MARK” if you are not confident in your work. Your teacher will then give feedback on your response, which will help clarify any misconceptions, but will not count it towards your required mark total. Please contact your teacher if you have any questions.

- ① 1. Explain how the binomial theorem is related to Pascal's triangle.  

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- ① 2. The numbers 1, 19, 171, 969, and 3 876 are the first values in a row of Pascal's triangle. Determine the first five values of the row above it.
- ② 3. Determine the fifth term of the expansion of  $(3 - 2x)^6$  if the expansion is written in ascending order by degree of  $x$ .
- ② 4. Does the expansion of  $\left(x^2 - \frac{1}{x}\right)^7$  contain an  $x^3$  term? Justify.

When this workbook is complete, submit it using a method described at the beginning of this *Workbook*. Next, complete *Test Your Understanding Quiz 6.2* online in Moodle. When complete, return to the Module and begin *Lesson 7.1*.



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Revised May 2019