

## Semester 1 DCP Numeracy Standards

Note: This semester, students focused on integer and fraction arithmetic (addition, subtraction, multiplication, and division). Next semester, students will study decimals, percents, and additional topics as time permits (averaging, unit conversion, etc.).

<b>DCP Numeracy Standard</b> <i>DCP students will be able to:</i>	<b>Taught 1<sup>st</sup> Semester</b>	<b>On Semester 1 Final</b>
1) Perform all arithmetic operations.		
1. Round numbers to any place value.	ALEKS	No
2. Add, subtract, multiply, and divide single and multi-digit numbers, including decimals to the thousandths place.	Mostly (decimals 2 <sup>nd</sup> semester)	Mostly (decimals 2 <sup>nd</sup> semester)
3. Multiply and divide by powers of 10 by moving the decimal point.	n/a (2 <sup>nd</sup> semester)	n/a (2 <sup>nd</sup> semester)
4. Use prime factorizations to find GCFs and LCMs, and to reduce fractions.	Mostly (not GCF)	Mostly (not GCF)
5. Add, subtract, multiply, and divide fractions and mixed numbers.	Yes	Yes
6. Convert between fractions and mixed numbers.	Yes	Yes
2) Demonstrate number sense and confidence with numbers.		
1. Model numbers with base-10 blocks and know how to exchange between place values in the decimal system.	Yes	Indirect (add with carry and subtract with borrow)
2. Correctly say and spell individual place values and number names into the billions.	Somewhat in Lessons; Yes in ALEKS	No
3. Use strategies to facilitate recall of basic arithmetic facts.	Yes	Indirect
4. Determine if a number is prime or composite.	Yes	Indirect (prime factorization)
5. Understand division as both “groups of” and “per group”.	Somewhat (“groups of” only)	
6. Use inverse operations to solve subtraction and division problems.	Somewhat (subtraction only)	
7. Estimate the value of a fraction, compare two fractions, and put a set of fractions in order.	Somewhat (wait until decimals 2 <sup>nd</sup> semester for estimation, compare yes, order in ALEKS)	No (wait until decimals 2 <sup>nd</sup> semester)
3) Read, interpret, and create graphical representations of information.		
4) Know when and how to apply numeracy concepts to relevant applications.		

Semester 1 Final Exam Skills List

<b>Skill</b> Students will be able to:	<b>Problem(s)</b> 95 grand total
<b>INTEGERS</b>	55 problems section total
<b>Adding Single-Digit Integers</b>	16 problems
• Add single-digit positive integers.	1, 6
• Add single-digit negative integers.	2, 7
• Add single-digit positive integers with single-digit negative integers, and vice versa.	3-5, 8-10
• Add multi-digit positive integers without carrying.	21, 24
• Add multi-digit positive integers with a single carry.	22, 25
• Add multi-digit positive integers with multiple carries.	23, 26
<b>Subtracting Single-Digit Integers</b>	16 problems
• Subtract single-digit positive integers.	11, 16, 17
• Subtract single-digit positive integers by single-digit negative integers and vice versa.	12, 13, 18, 19
• Subtract single-digit negative integers.	14, 15, 20
• Subtract multi-digit positive integers without borrowing.	27, 30
• Subtract multi-digit positive integers with a single borrow.	28, 31
• Subtract multi-digit positive integers with multiple borrows.	29, 32
<b>Multiplying Integers</b>	13 problems
• Multiply positive and negative integers from the multiplication table.	33-39
• Multiply multi-digit positive integers by single-digit positive integers without carrying.	40
• Multiply multi-digit positive integers by single-digit positive integers with a single carry.	41
• Multiply multi-digit positive integers by single-digit positive integers with multiple carries.	42
• Multiply multi-digit positive integers by multi-digit positive integers without carrying.	43
• Multiply multi-digit positive integers by multi-digit positive integers with carrying.	44, 45
<b>Dividing Integers</b>	10 problems
• Divide positive integers from the multiplication table without remainders.	46-48
• Divide positive integers with remainders using only a single step from the multiplication table.	49, 50
• Divide multi-digit positive integers by single-digit positive integers without remainders.	51
• Divide multi-digit positive integers by single-digit positive integers with remainders	52
• Divide multi-digit positive integers by multi-digit positive integers without remainders.	53
• Divide multi-digit positive integers by multi-digit positive integers with remainders	54, 55
<b>FRACTIONS</b>	40 problems section total

<b>Fraction Concepts</b>	<b>24 problems</b>
• Write fractions from shaded, circular regions.	56, 57
• Draw shaded, circular regions from fractions.	58, 59
• Write fractions from shaded, non-circular regions.	60, 62
• Draw shaded, non-circular regions from fractions.	61, 63
• Given a whole, draw the part.	64
• Given a part, draw the whole.	65
• Convert mixed numbers into improper fractions.	66, 67
• Convert improper fractions to mixed numbers.	68, 69
• Plot fractions on the number line.	70
• Write fractions from points on the number line.	71
• Determine if fractions are equivalent.	72
• Find the prime factorization of whole numbers.	73
• Simplify fractions and mixed numbers using prime factorizations and canceling terms.	74, 75
• Simplify improper fractions using prime factorizations and canceling terms, and converting them to mixed numbers.	
• Find the least common multiple of whole numbers.	76, 77
• Find fractions of collections of objects.	94, 95
<b>Adding Fractions</b>	<b>4 problems</b>
• Add and subtract fractions with common denominators.	78
• Add and subtract fractions with differing denominators.	80, 81
• Add mixed numbers with common denominators.	84
<b>Subtracting Fractions</b>	<b>3 problems</b>
• Subtract fractions with common denominators.	79
• Subtract fractions with differing denominators.	82, 83
<b>Multiplying Fractions</b>	<b>5 problems</b>
• Multiply fractions.	85, 86
• Multiply fractions by mixed numbers and whole numbers.	87, 88
• Multiply mixed numbers by whole numbers.	89
<b>Dividing Fractions</b>	<b>4 problems</b>
• Divide fractions.	90
• Divide fractions by mixed numbers and whole numbers, and vice versa.	91, 92
• Divide mixed numbers by whole numbers, and vice versa.	93