

Section 1.1

Introduction to Whole Numbers

15 points on this page

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- 1.** **3 pts**
Find the place value of each indicated digit in the given number. 2,850,361,159,433 (a) 9 (b) 8 (c) 6 (d) 4 (e) 2

- 2.** **7 pts**
Find the least common multiple of the following pair of numbers using the prime factors method. 28, 40

- 3.** **5 pts**
Jorge bought a car for \$24,493. Round the price to the nearest ten-thousand.

Section 1.3

Add and Subtract Integers

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1. **5 pts**
Simplify. $-(-15)$

2. **3 pts**
Order each of the following pairs of numbers, using $<$ or $>$.
(a) -7 ___ 3 (b) -10 ___ -5 (c) 2 ___ -6 (d) 8 ___ 9

3. **5 pts**
Compute the value of $-|-9|$

Section 1.4

Multiply and Divide Integers

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1. **5 pts**

Compute the quotient for each division and show your work. $35 \div (-7)$

2. **5 pts**

Compute the quotient for each division and show your work. $-84 \div (-6)$

3. **7 pts**

Evaluate the expression. $3u^2 - 4u + 5$ when $u = -3$

Section 1.5

Visualize Fractions

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1. **7 pts**

Simplify the following expression. Show your work. $\frac{7 \cdot 4 - 2(8 - 5)}{9 \cdot 3 - 3 \cdot 5}$

2. **7 pts**

Divide the following fractions. $\frac{4}{5} \div \frac{3}{4}$

3. **7 pts**

Divide the following fractions. $-\frac{7}{9} \div \left(-\frac{7}{4}\right)$

Section 1.6

Add and Subtract Fractions

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1. **7 pts**

Use the order of operations to simplify.

$$\frac{\frac{3}{4} - \frac{3}{5}}{\frac{1}{4} + \frac{2}{5}}$$

2. **7 pts**

Add the fractions and simplify.

$$\frac{y}{2} + \frac{2}{3}$$

3. **7 pts**

Use the order of operations to simplify.

$$\frac{1}{3} + \frac{2}{5} \cdot \frac{3}{4}$$

Section 1.1

Introduction to Whole Numbers

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1. **7 pts**

Find the least common multiple of the following pair of numbers using the prime factors method. 84, 90

2. **7 pts**

Find the prime factorization of the following number. 432

3. **7 pts**

Find the least common multiple of the following pair of numbers using the multiples method. 30, 40

Section 1.3

Add and Subtract Integers

15 points on this page

1. **5 pts**
Simplify. $8 - 2$

2. **5 pts**
Simplify each expression. $48 - 87$

3. **5 pts**
Simplify each expression. $-19 - 46$

Section 1.4

Multiply and Divide Integers

17 points on this page

1. **7 pts**

Simplify the following expression. $9 - 2[3 - 8(-2)]$

2. **3 pts**

In your own words, state the rules for multiplying integers.

3. **7 pts**

Simplify the following expression. $(8 - 11)(9 - 12)$

Section 1.5

Visualize Fractions

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1. 7 pts

Simplify the following expression. Show your work. $\frac{6 \cdot 6}{9 \cdot 2}$

2. 7 pts

Simplify the following expression. Show your work. $\frac{8 \cdot 3 + 2 \cdot 9}{14 + 3}$

3. 7 pts

Simplify the following expression. Show your work. $\frac{8 \cdot 9 - 7 \cdot 6}{5 \cdot 6 - 9 \cdot 2}$

Section 1.6

Add and Subtract Fractions

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1. **7 pts**

Simplify. (a) $\frac{3a}{8} \div \frac{7}{12}$ (b) $\frac{3a}{8} - \frac{7}{12}$

2. **5 pts**

Subtract the fractions. Show your work, using figures or algebra.

$$-\frac{29}{v} - \frac{26}{v}$$

3. **5 pts**

Add the fractions with a common denominator. Show your work, using figures or algebra.

$$-\frac{8}{17} + \frac{15}{17}$$