

Math 017 Review for Exam 1

1. Write all of the factors of each of the following.

- (a) 60 (b) 75 (c) 72 (d) 12

2. Write the prime factorization of each of the numbers in problem 1 above.

3. Find the least common multiple (LCM)

- (a) 24 and 15 (b) 16 and 7 (c) 12 and 16 (d) 15, 18, and 21

4. Reduce completely.

- (a) $\frac{24}{54}$ (b) $\frac{34}{51}$ (c) $\frac{12}{18}$ (d) $\frac{15}{33}$

5. Compute.

- (a) $\frac{5}{12} \cdot \frac{6}{15}$ (b) $\frac{7}{8} \div \frac{7}{16}$ (c) $\frac{5}{21} + \frac{11}{18}$ (d) $7\frac{2}{9} - 2\frac{5}{6}$
(e) $\frac{5}{8} - \frac{3}{10}$ (f) $\frac{2}{3} \cdot \left(-\frac{3}{4}\right)$ (g) $-\frac{3}{4} - \frac{5}{8}$ (h) $-\frac{3}{5} \div \left(-\frac{6}{7}\right)$

6. Draw and label a scale on the number line and plot and label the points:

- A 3.7 B -5 C 2 D $-1\frac{2}{3}$

7. Compare:

- (a) -4 _____ -2 (b) -1.3 _____ 4.8
(c) $-\frac{2}{3}$ _____ $-\frac{3}{5}$ (d) -0.0987 _____ -0.2

8. Compute.

- (a) $|-8|$ (b) $5 - (-3)$ (c) $24 \div (-4)$
(d) $-3(-5)(-8)$ (e) $-3(-2) - 8$ (f) $(-5) - (-14) + (-8) - (+6) + 7$
(g) $15 + 3(2 + 5)^2$ (h) $5.8 - (-4.3)$ (i) $-3(5) - [4(6) - 2^3]$

9. Evaluate.

- (a) $\frac{x+y}{6}$ for $x = 7$ and $y = 17$ (b) $\frac{4x}{y}$ when $x = 6$ and $y = 8$

10. Translate to an algebraic expression:

- (a) 7 added to c (b) twice a (c) c divided by d (d) 6 subtracted from x

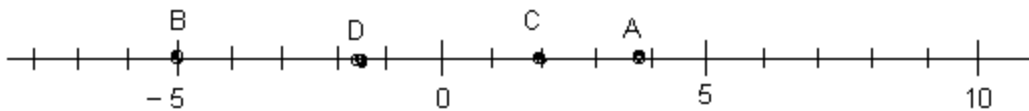
11. Use the formula

- (a) $C = 5(F - 32)/9$ to convert $14^\circ F$ to Celsius.
(b) $F = 9C/5 + 32$ to convert $-8^\circ C$ to Fahrenheit.

Answers to Math 017 Review for Exam 1

- 1.(a) 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60 (b) 1, 3, 5, 15, 25, 75
(c) 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72 (d) 1, 2, 3, 4, 6, 12
- 2.(a) $2 \cdot 2 \cdot 3 \cdot 5$ (b) $3 \cdot 5 \cdot 5$ (c) $2 \cdot 2 \cdot 2 \cdot 3 \cdot 3$ (d) $2 \cdot 2 \cdot 3$
- 3.(a) 120 (b) 112 (c) 48 (d) 630
- 4.(a) $\frac{4}{9}$ (b) $\frac{2}{3}$ (c) $\frac{2}{3}$ (d) $\frac{5}{11}$
- 5.(a) $\frac{1}{6}$ (b) 2 (c) $\frac{107}{126}$ (d) $4\frac{7}{18}$ (e) $\frac{13}{40}$ (f) $-\frac{1}{2}$ (g) $-\frac{11}{8}$ (h) $\frac{7}{10}$

6.



7. (a) is less than (b) is less than (c) is less than (d) is greater than
8. (a) 8 (b) 8 (c) -6 (d) -120 (e) -2 (f) 2 (g) 162 (h) 10.1 (i) -31
9. (a) 4 (b) 3
- 10.(a) $7 + c$ (b) $2a$ (c) $c/4$ (d) $x - 6$
- 11.(a) -10°C (b) 17.6°F