Sample Documents

Ohio Math Proficiency
(OH1)

EducAide Software

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1. Find the sum: \(2 \frac{1}{2} + 5\frac{5}{7} = \) 
A. \(7\frac{9}{14}\) 
B. \(8\frac{3}{14}\) 
C. \(8\frac{2}{7}\) 
D. \(8\frac{6}{7}\)

2. The Tiffany Boutique had a dress on sale at \(\frac{1}{3}\) off the original price of $99.00. Later the price was reduced even further by taking \(\frac{1}{6}\) off the sale price. What was the final reduced selling price?
A. $30  
B. $33  
C. $55  
D. $66

3. The prices at a music store are shown.  
J.T. purchased two CD’s coded A, one CD coded B, one tape with code X, and two tapes with code Y. How much did J.T. spend?

<table>
<thead>
<tr>
<th>Code</th>
<th>Item</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>CD</td>
<td>$18.95</td>
</tr>
<tr>
<td>B</td>
<td>CD</td>
<td>$12.95</td>
</tr>
<tr>
<td>C</td>
<td>CD</td>
<td>$ 9.95</td>
</tr>
<tr>
<td>X</td>
<td>Tape</td>
<td>$ 7.95</td>
</tr>
<tr>
<td>Y</td>
<td>Tape</td>
<td>$ 6.95</td>
</tr>
</tbody>
</table>

A. $57.80 
B. $67.90 
C. $72.70 
D. more than $80.00

4. Choose the statement that is true.
A. \(\frac{1}{2} \geq 0.5\) 
B. \(50\% > \frac{1}{2}\) 
C. \(0.5 < 50\%\) 
D. \(0.5 > 50\%\)

5. Find the difference: \(12\text{lb 1 oz} - 8\text{lb 3 oz}\)
A. 3lb 2oz  
B. 3lb 14oz  
C. 4lb 2oz  
D. 4lb 12oz

6. Which of the points shown is located at 4.8 cm?
A. A  
B. B  
C. D  
D. none of the points

7. Identify the type of angle which is described by the phrase: “the measure is less than 90\(^\circ\).”
A. acute  
B. right  
C. straight  
D. obtuse

8. If a radius of circle \(P\) has measure 4.6 cm, find the length of a diameter.
A. 4.6 cm  
B. 8.2 cm  
C. 8.3 cm  
D. 9.2 cm
9. Name the indicated barometer reading shown at arrow A.
   A. 15.5
   B. 29.0
   C. 29.2
   D. 30.0

10. What is the approximate circumference of a circle with radius 7 feet?
    A. 38 feet
    B. 42 feet
    C. 44 feet
    D. 154 feet

11. If \( x = 1.6 \text{ m} \) in the diagram, determine the approximate circumference of the circle.
    A. 5 m
    B. 5.5 m
    C. 8 m
    D. 10 m

12. Find the volume of a rectangular solid measuring 5 mm by 22 mm by 8 mm.
    A. 286 mm\(^3\)
    B. 440 mm\(^3\)
    C. 652 mm\(^3\)
    D. 880 mm\(^3\)

13. Calculate the surface area of the rectangular solid shown.
    A. 840.8 cm\(^2\)
    B. 1681.6 cm\(^2\)
    C. 1880.2 cm\(^2\)
    D. 4579.5 cm\(^2\)

14. Each letter in the word \textit{CALCULATOR} is written on a piece of paper and dropped in a hat. What is the probability that the first piece of paper randomly drawn from the hat will have the letter \( L \) written on it?
    A. \( \frac{1}{10} \)
    B. \( \frac{1}{9} \)
    C. \( \frac{1}{5} \)
    D. \( \frac{2}{5} \)

15. Use the mileage chart shown to find the approximate distance from Columbus to Sandusky.

16. The formula \( FV = p(1 + rt) \) gives the future value \( FV \) of any principal \( p \) at simple interest for any rate \( r \) for any time \( t \). What would the principal if:
    \[ FV = $560 \]
    \[ r = 0.06 \]
    \[ t = 2 \text{ years} \]
    A. $500
    B. $540
    C. $580
    D. $627.20
Answer List

1. B  
4. A  
7. A  
10. C  
13. B  
16. A

2. C  
5. B  
8. D  
11. D  
14. C  

3. C
6. C
9. C
12. D
15. B

Catalog List

1. OH1 AA 37  
4. OH1 AB 10  
7. OH1 CA 42  
10. OH1 CB 41  
13. OH1 CC 93  
16. OH1 EB 66

2. OH1 AA 83  
5. OH1 BB 56  
8. OH1 CA 104  
11. OH1 CB 56  
14. OH1 DB 28  

3. OH1 AA 161  
6. OH1 BD 88  
9. OH1 BD 51  
12. OH1 CC 16  
15. OH1 DA 47
1. Paul agreed to build a fence around a garden that is a rectangle 29 ft by 18 ft to keep out the rabbits. How many yards of 24 inch high fence does he need?
   a. 90 ft  
   b. $15\frac{2}{3}$ yd  
   c. 33$\frac{1}{3}$ ft  
   d. 31$\frac{1}{3}$ yds  
   e. none of these

2. A carpenter had a piece of wood that was 7 ft 6 in. long. He cut 2 ft 9 in. from the end of it. How long a piece of wood did he have left?
   a. 4 ft 3 in.  
   b. 5 ft 6 in.  
   c. 4 ft 9 in.  
   d. 5 ft 9 in.  
   e. none of these

3. What is the measure of $\angle DXC$?
   a. 27$^\circ$  
   b. 153$^\circ$  
   c. 167$^\circ$  
   d. 33$^\circ$  
   e. none of these

4. State the measure of $\angle FXD$ shown.
   a. 147$^\circ$  
   b. 133$^\circ$  
   c. 53$^\circ$  
   d. 47$^\circ$  
   e. none of these

5. 40 qt = □ gal
   a. 10  
   b. 80  
   c. 8  
   d. 160  
   e. none of these

6. 7 gal = □ qt
   a. 56  
   b. 3$\frac{1}{2}$  
   c. 28  
   d. 1$\frac{3}{4}$  
   e. none of these

7. State the length of $\overline{RS}$.

   a. 2 in.  
   b. $5\frac{1}{2}$ in.  
   c. 4 in.  
   d. $2\frac{1}{2}$ in.  
   e. none of these

8. Find the length of $\overline{PQ}$ in millimeters.

   a. 25 mm  
   b. 30 mm  
   c. 3.5 mm  
   d. 35 mm  
   e. none of these
Answer List

1. d  
2. c  
3. b  
4. d  
5. a  
6. c  
7. e  
8. d

Catalog List

1. OH1 BB 21  
2. OH1 BB 24  
3. OH1 BD 30  
4. OH1 BD 17  
5. OH1 BB 79  
6. OH1 BB 80  
7. OH1 BD 103  
8. OH1 BD 82
1. A metal bar 36 inches long is to be cut into pieces 1\(\frac{1}{2}\) inches in length. Every cut made has a thickness of \(\frac{1}{10}\) in. How many pieces of the correct length can be cut from the bar?

(a) 20  (b) 21  (c) 22  (d) 23  (e) 24

2. Which of the following is equivalent to 30%?

(a) \(\frac{6}{200}\)  (b) \(\frac{3}{10}\)  (c) \(\frac{15}{22}\)  (d) 30  (e) \(\frac{150}{50}\)

3. Estimate the measure of the angle shown.

(a) 35\(^\circ\)  (b) 90\(^\circ\)  (c) 135\(^\circ\)  (d) 175\(^\circ\)  (e) 180\(^\circ\)

4. What part of the circle is \(\overline{BA}\)?

(a) radius  (b) arc  (c) center
(d) diameter  (e) angle

5. If the letters from the words EQUILATERAL TRIANGLE are written on pieces of paper and placed in a box, what is the probability of randomly drawing the letter E?

(a) \(\frac{3}{20}\)  (b) \(\frac{3}{19}\)  (c) \(\frac{2}{19}\)  (d) \(\frac{1}{10}\)  (e) \(\frac{1}{6}\)
6. Students in the pre-algebra class constructed a graph from data collected in a student survey. How many more students preferred football to swimming?

(a) 30  (b) 35  (c) 40
(d) 50  (e) 70

7. Video Country, a tape rental store, charges $2.50 for movies for one night. They charge half price on children’s videos. Which formula best describes the price $P$ of renting $R$ videos at the regular rate and $C$ children’s videos for one night?

(a) $P = 2.50R + \frac{1}{2}C$
(b) $P = 2.50R + 1.25C$
(c) $P = 2.50R + C$
(d) $P = 2.50(R + C)$
(e) $P = 2.50C + \frac{1}{2}(2.50R)$

8. Which equation has the same solution as $4x - 3 = -14$?

(a) $x = -14$  (b) $4x = -42$  (c) $4x = -17$
(d) $4x = -14$  (e) $4x = -11$

Evaluate for the given value(s).

9. $11c + 5a - 8$ for $a = 4$ and $c = -6$

(a) $-54$  (b) $-20$  (c) $6$  (d) $32$  (e) $78$

10. $-6m^2 + mq^2$ for $m = 6$ and $q = -7$

(a) $-78$  (b) $-1$  (c) $1$  (d) $78$  (e) $509$
## Answer List

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<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1</td>
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<td>2</td>
</tr>
<tr>
<td>4</td>
<td>d</td>
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<tr>
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<tr>
<td>10</td>
<td>d</td>
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## Catalog List

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<td>7</td>
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