

Section 3.6

September 25, 2019

Orders of Operations

BEDMAS

S
t
r
e
a
m

S
t
r
e
a
m

.
-
s
i
g
n

u
n
d
e
r
l
i
n
e

d
d

u
b
t
r
a
c
t

order it appears
in question

order they appear
in the question

$$-\frac{1}{6} - \frac{1}{2} + \frac{3}{8}$$

$$\overset{\times 4}{-\frac{1}{\cancel{6}^4}} - \frac{\overset{\times 12}{1}}{\cancel{2}^{12}} + \frac{\overset{\times 3}{11}}{\cancel{8}^3}$$

$$\frac{-28}{24} - \frac{12}{24} + \frac{33}{24}$$

$$\left(\frac{-7}{24} \right)$$

BEOMAS

$$\text{LCM} = 24$$

BEOMAS

Orders of Operation

BEDMAS

1. $3 \times 2 + 9$

$$6 + 9$$

$$15$$

2. $7 \times 6 + 4 \times 2$

$$42 + 4 \times 2$$

$$42 + 8$$

$$50$$

BEDMAS

3. $8 \div 2 \times 9$

4×9

36

4. $24 - 7 \times 2$

$24 - 14$

10

BEDMAS

5. $36 \div 9 + 7$

$$\begin{array}{l} 4 + 7 \\ \textcircled{11} \end{array}$$

6. $42 \div (6 - 3)$

$$\begin{array}{l} \downarrow \\ 42 \div 3 \\ \textcircled{14} \end{array}$$

BEDMAS

7. $(4 + 3 \times 2) - 10$

$$(4 + 6) - 10$$

$$10 - 10$$

$$0$$

8. $(10 - 2 \times 2) \times 3$

$$(10 - 4) \times 3$$

$$6 \times 3$$

$$18$$

$$9. \frac{4 \times 2 + 3 \times 6}{2 \times 7 - 1}$$

$$\frac{8 + 3 \times 6}{14 - 1}$$

$$\frac{8 + 18}{13}$$

$$\frac{26}{13} = 2$$

$$10. \frac{27 \div 3 + 1}{2 \times 2 + 1}$$

$$\frac{9 + 1}{4 + 1}$$

$$\frac{10}{5} = 2$$

BEDMAS

$$11. \quad (-3) - 2 \times 8 + 8$$

$$-3 - 16 + 8$$

$$\textcircled{-11}$$

Orders of Operations with decimals...

BEDMAS

$$12. \quad (-0.8) + 1.2 \div (-0.3) \times 1.5$$

$$-0.8 - 4 \times 1.5$$

$$-0.8 - 6$$

$$\textcircled{-6.8}$$

$$B. \quad (-3.2) - 0.9 \div [0.7 - (-1.2)]$$

$$-3.2 - 0.9 \div 1.9 \leftarrow$$

$$-3.2 - 0.47$$

$$\textcircled{-3.67}$$

BEDMAS

$$-3\frac{2}{5} \times -1\frac{5}{6} + \frac{3}{10}$$

$$-\frac{17}{5} \times -\frac{11}{6} + \frac{3}{10}$$

$$\frac{187}{30} + \frac{3 \times 3}{10 \times 3}$$

$$\frac{187}{30} + \frac{9}{30}$$

$$\frac{196}{30} = 6\frac{16}{30}$$

$$\frac{8}{15}$$

common denominators!!

BEDMAS

$$-3\frac{1}{2} \times 2\frac{1}{6} \div -\frac{1}{5}$$

$$-\frac{7}{2} \times \frac{13}{6} \div -\frac{6}{5}$$

$$-\frac{91}{12} \div -\frac{6}{5} \leftarrow \text{flip}$$

$$-\frac{91}{12} \times -\frac{5}{6}$$

$$\frac{455}{72} = 6\frac{23}{72}$$

Classwork

Answers
pg 484

Page 140

4 a, c

Page 141

12 a, b, c

$$4.a) \frac{1}{2} + \frac{-3}{4} \times \frac{1}{3}$$

$$\#4. a) \frac{1}{4} \quad c) \frac{15}{8} = 1\frac{7}{8}$$

$$\#12. a) -6\frac{1}{3} \quad b) 6\frac{8}{15} \quad c) 3\frac{1}{4}$$