

Fill in the blanks:
(2 pts. each)

- 1) A prime number is divisible by only two numbers, one and itself.
- 2) The reciprocal of any rational number is a rational number where the numerator and denominator are reversed. The product of the two rational numbers equals 1.
- 3) -7 is an example of a negative number. (alternative: *integer*)
- 4) A proportion is a statement that two ratios are equal.
- 5) A percent changed to a fraction will have a denominator of 100.
- 6) Using the numbers "1" through "6" put the following "operations in algebraic problem solving" in the proper order:
(12 pts.)

<u>2</u>	Evaluate all exponents and roots.	E
<u>4</u>	Evaluate all divisions.	D
<u>3</u>	Evaluate all multiplications.	M
<u>1</u>	Evaluate data within parentheses or brackets.	P
<u>6</u>	Evaluate all subtractions.	S
<u>5</u>	Evaluate all additions.	A

P E M D A S !!!

Perform each of the indicated operations:
(5 pts. each)

$$7) \quad (5/16) \div (1/3) = \quad \mathbf{15/16} \quad = \mathbf{0.9375}$$

$$8) \quad (7/8)(3/16) = \quad \mathbf{21/128} \quad = \mathbf{0.1641}$$

$$9) \quad (16/28)(4/2)(1/5) = \quad \mathbf{8/35} \quad = \mathbf{0.2286}$$

$$10) \quad (6/18) + (5/9) = \quad \mathbf{8/9} \quad = \mathbf{0.8889}$$

$$11) \quad -7 \div (5/9) = \quad \mathbf{-63/5} \quad = \mathbf{-12.6000}$$

$$12) \quad (14/9) + (-3/4) = \quad \mathbf{29/36} \quad = \mathbf{0.8056}$$

$$13) \quad (3/7) + (4/-14) - (4/28) = \quad \mathbf{0}$$

$$14) \quad \left(\frac{5}{1/3} \right) + (17/4) - (2/5) = \quad \mathbf{377/20} \quad = \mathbf{18.8500}$$

$$15) \quad 60\% \text{ of } 95 = \quad \mathbf{57}$$

$$16) \quad 16 \text{ is what percent of } 128? \quad \mathbf{12.5\%}$$

$$17) \quad \text{Which fraction is the largest } \boxed{7/\sqrt{3}} \text{ or } 78/20 \text{ ? (circle one)}$$

$$18) \quad \text{The reciprocal of } \left(\frac{7}{-1/2} \right) = \quad \mathbf{-1/14}$$

For the following two questions, $x = \sqrt{4}$, $y = 3$, $z = -2$
(9 pts. each)

$$19) \quad \frac{3x}{z} - \frac{xy}{4} + \frac{(xz)^2}{1} = \quad \mathbf{23/2} \quad = \mathbf{11.5000}$$

$$20) \quad 2x^3 + 6y - z^2x = \quad \mathbf{26}$$