

NAME \_\_\_\_\_

# NOTES

## SOLVING FOR WHOLE, PART OR PERCENT USING A PROPORTION

$$\frac{\text{PART}}{\text{WHOLE}} = \frac{\text{PERCENT}}{100}$$

\*\*\* OF ALWAYS COMES BEFORE THE WHOLE \*\*\*  
FIND PERCENT.

15 IS WHAT % OF 80?

CROSS MULTIPLY

$$\frac{15}{80} = \frac{x}{100}$$
$$80x = 1500$$

$$\frac{80x}{80} = \frac{1500}{80} \quad \div \text{ BOTH SIDES BY COEFFICIENT OF } x$$
$$x = 18.75\%$$

15 IS 18.75% OF 80.

FIND PART.

WHAT NUMBER IS 80% OF 300?

$$\frac{p}{300} = \frac{80}{100}$$

$$\frac{100p}{100} = \frac{24000}{100} \quad \div \text{ BOTH SIDES BY COEFFICIENT OF } p$$
$$p = 240$$

$$100p = 2400$$

240 IS 80% OF 300.

FIND WHOLE.

90 IS 20% OF WHAT NUMBER?

$$\frac{90}{w} = \frac{20}{100}$$
$$20w = 9000$$

$$\frac{20w}{20} = \frac{9000}{20}$$
$$w = 450$$

90 IS 20% OF 450.

FIND %.

① WHAT % OF 50 IS 35?

② WHAT % OF 400 IS 280?

③ WHAT % OF 60 IS 3?

④ WHAT % OF 1200 IS 360?

⑤ WHAT % OF 800 IS 90?

## FIND PART.

① WHAT NUMBER IS 80% OF 500?

② WHAT NUMBER IS 35% OF 60?

③ WHAT NUMBER IS 25% OF 120?

④ WHAT NUMBER IS 120% OF 500?

⑤ WHAT NUMBER IS 8% OF 50?

FIND WHOLE.

① 80 IS 20% OF WHAT NUMBER?

② 400 IS 40% OF WHAT NUMBER?

③ 60 IS 2% OF WHAT NUMBER?

④ 90 IS 35% OF WHAT NUMBER?

⑤ 120 IS 150% OF WHAT NUMBER?