SECTION 6.2 (RED)
#15, 20, 21, 22, 24, 25, 30, 32

BEN WILSON
PER 1
12/9/19

15) WHAT PERCENT OF 25 IS 12?

$$\frac{a}{w} = \frac{p}{100}$$

$$\frac{12}{25} = \frac{p}{100}$$

$$\frac{1200}{25} = \frac{25p}{25}$$

$$48 = p$$

$$\boxed{p = 48\%}$$

20) 110% OF 90 IS WHAT NUMBER?

$$\frac{a}{w} = \frac{p}{100}$$

$$\frac{a}{90} = \frac{110}{100}$$

$$\frac{a}{90} = \frac{11}{10}$$

$$\frac{10a}{10} = \frac{990}{10}$$

$$\boxed{a = 99}$$

21) WHAT NUMBER IS 0.4% OF 40?

$$\frac{a}{w} = \frac{p}{100}$$

$$\frac{a}{40} = \frac{0.4}{100}$$

$$\frac{100a}{100} = \frac{16}{100}$$

$$\boxed{a = 0.16}$$

22) 72 IS WHAT PERCENT OF 45?

$$\frac{a}{w} = \frac{p}{100}$$

$$\frac{72}{45} = \frac{p}{100}$$

$$\frac{8}{5} = \frac{p}{100}$$

$$\frac{800}{5} = \frac{5p}{5}$$

$$\boxed{p = 160\%}$$

24) OF 140 SEVENTH-GRADE STUDENTS, 15% EARN THE PRESIDENTIAL YOUTH FITNESS AWARD. HOW MANY STUDENTS EARN THE AWARD?

$$\frac{a}{w} = \frac{p}{100}$$

$$\frac{a}{140} = \frac{15}{100}$$

$$\frac{a}{140} = \frac{3}{20}$$

$$\frac{20a}{20} = \frac{420}{20}$$

$$a = 21$$

TWENTY-ONE STUDENTS EARN THE AWARD

25) A SALESPERSON RECEIVES A 3% COMMISSION ON SALES. THE SALESPERSON RECEIVES $180 IN COMMISSION. WHAT IS THE AMOUNT OF SALES?

$$\frac{a}{w} = \frac{p}{100}$$

$$\frac{180}{w} = \frac{3}{100}$$

$$\frac{3w}{3} = \frac{18000}{3}$$

$$w = 6,000$$

THE AMOUNT OF SALES IS $6000.

#30, 32

30) 32 TOTAL MATH EXERCISES
75% FINISHED BEFORE DINNER
HOW MANY EXERCISES AFTER DINNER?

$$\frac{a}{w} = \frac{P}{100}$$

$$\frac{a}{32} = \frac{75}{100} \leftarrow 75\%$$

$$\frac{a}{32} = \frac{3}{4}$$

$$\frac{4a}{4} = \frac{96}{4}$$

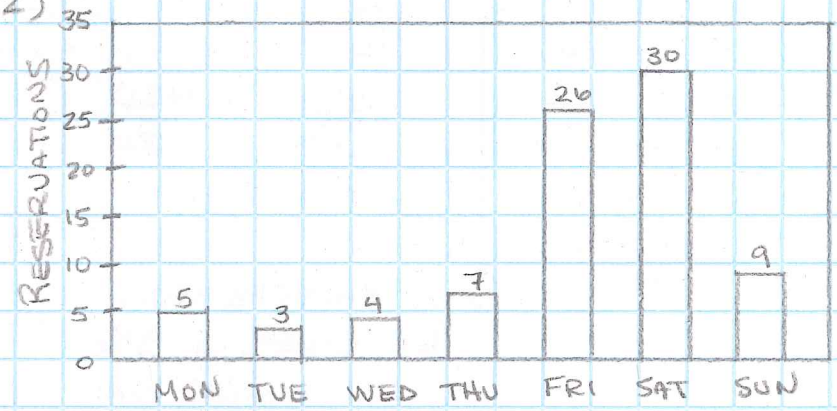
$$a = 24$$

AMOUNT FINISHED BEFORE DINNER

$$32 - 24 = 8$$

THERE ARE 8 EXERCISES LEFT TO FINISH AFTER DINNER.

32)



$$\frac{\text{FRI + SAT}}{\text{TOTAL DAYS}}$$

$$\frac{26+30}{5+3+4+7+26+30+9}$$

$$\frac{a}{w} = \frac{P}{100}$$

$$\frac{56}{84} = \frac{P}{100}$$

$$\frac{2}{3} = \frac{P}{100}$$

$$\frac{3P}{3} = \frac{200}{3}$$

$$P = 66\frac{2}{3}\%$$