

ERROR INTERVALS

Task 1 – Write the error interval for each of the following numbers.

- 1) A number x is 48, correct to the nearest unit. Write the error interval.

$$47.5 \leq x < 48.5$$

- 2) A number y is 120, correct to the nearest 10.

$$115 \leq y < 125$$

- 3) A number m is 670, correct to the nearest 100.

$$620 \leq m < 720$$

- 4) A number x is 3500, correct to the nearest 1000.

$$3000 \leq x < 4000$$

- 5) A number p is 85, correct to the nearest 5.

$$82.5 \leq p < 87.5$$

- 6) A number t is 260, correct to the nearest 20.

$$250 \leq t < 270$$

- 7) A number u is 9000, correct to the nearest 500.

$$8750 \leq u < 9250$$

- 8) A number x is 72, correct to the nearest 2.

$$71 \leq x < 73$$

- 9) A number r is 14, correct to the nearest unit.

$$13.5 \leq r < 14.5$$

- 10) A number x is 430, correct to the nearest 50.

$$405 \leq x < 455$$

- 11) A number w is 6.4, correct to 1 decimal place.

$$6.35 \leq w < 6.45$$

- 12) A number n is 2.37, correct to 2 decimal places.

$$2.365 \leq n < 2.375$$

- 13) A number j is 1.406, correct to 3 decimal places.

$$1.4055 \leq j < 1.4065$$

- 14) A number y is 0.9, correct to 1 decimal place.

$$0.85 \leq y < 0.95$$

- 15) A number h is 12.08, correct to 2 decimal places.

$$12.075 \leq h < 12.085$$

- 16) A number q is 7, correct to the nearest unit.

$$6.5 \leq q < 7.5$$

- 17) A number k is 0.54, correct to 2 decimal places.

$$0.535 \leq k < 0.545$$

- 18) A number s is 9.302, correct to 3 decimal places.

$$9.3015 \leq s < 9.3025$$

- 19) A number a is 15, correct to the nearest unit.

$$14.5 \leq a < 15.5$$

- 20) A number e is 3.0, correct to 1 decimal place.

$$2.95 \leq e < 3.05$$

- 21) A number j is 900, correct to 1 significant figure.

$$850 \leq j < 950$$

- 22) A number o is 43, correct to 2 significant figures.

$$42.5 \leq o < 43.5$$

- 23) A number d is 0.007, correct to 1 significant figure.

$$0.0065 \leq d < 0.0075$$

- 24) A number x is 6200, correct to 2 significant figures.

$$6150 \leq x < 6250$$

- 25) A number x is 5.8, correct to 2 significant figures.

$$5.75 \leq x < 5.85$$

- 26) A number y is 0.46, correct to 2 significant figures.

$$0.455 \leq y < 0.465$$

27) A number m is 78000, correct to 2 significant figures.

$$73000 \leq m < 83000$$

28) A number b is 3.07, correct to 3 significant figures.

$$3.065 \leq b < 3.075$$

29) A number v is 0.500, correct to 3 significant figures.

$$0.4995 \leq v < 0.5005$$

30) A number c is 250, correct to 2 significant figures.

$$245 \leq c < 255$$

31) A number s is written as 3.4 when truncated to 1 decimal place. Write the error interval.

$$3.4 \leq s < 3.5$$

32) A number x is written as 7.12 when truncated to 2 decimal places.

$$7.12 \leq x < 7.13$$

33) A number p is written as 0.008 when truncated to 3 decimal places.

$$0.008 \leq p < 0.009$$

39) The mass of a coin is 8 g, correct to 1 significant figure. Write the error interval for the mass.

$$7.5 \leq m < 8.5$$

40) The average speed of a journey is 45 km/h correct to the nearest 5. Write the error interval for the speed.

$$42.5 \leq s < 47.5$$

Task 2

34) A piece of string is measured as 15 m, correct to the nearest metre. Write the error interval for the length of the string.

$$14.5 \leq l < 15.5$$

35) The time of a race is recorded as 42 minutes, correct to the nearest minute. Write the error interval for the time taken.

$$41.5 \leq t < 42.5$$

36) The weight of a parcel is 4.8 kg, correct to 1 decimal place. Write the error interval for the weight of the parcel.

$$4.75 \leq w < 4.85$$

37) The length of a plank is 2.36 m, correct to 2 decimal places. Write the error interval for the length of the plank.

$$2.355 \leq l < 2.365$$

38) A school bus journey is said to take 30 minutes, correct to the nearest 5 minutes. Write the error interval for the time of the journey.

$$27.5 \leq t < 32.5$$