Rounding and bounds
Higher worksheet

1)   Round 37 to the nearest 10.

2)   Round 32 to the nearest 10.

3)   Round 35 to the nearest 10.

4)   Round 37 to the nearest 10.

5)   Round 524 to the nearest 10.

6)   Round 524 to the nearest 100.

7)   Round 7640 to the nearest 1000.

8)   Round 7640 to the nearest 100.

9)   Round 493.29 to the nearest 100.

10)   Round 493.29 to the nearest 10.

Rounding and bounds
Higher worksheet

11)   Round 493.29 to the nearest 1000.

12)   Round 493.29 the nearest whole number.

13)   Round 493.29 to one decimal place.

14)   Truncate 493.29 to one decimal place.

15)   Round 8.501 to the nearest whole number.

16)   Round 30.781 to the nearest tenth.

17)   Round 30.781 to two decimal places.

18)   Round 114.0025 to three decimal places.

19)   Round 87.299 to the nearest hundredth.

20)   Round 87.299 to one decimal place.

Rounding and bounds
Higher worksheet

21) Round 205,778 to one significant figure.

22) Round 205,778 to two significant figures.

23) Round 205,778 to three significant figures.

24) Round 4319 to one significant figure.

25) Round 48.173 to one significant figure.

26) Round 48.173 to two significant figures.

27) Round 48.173 to three significant figures.

28) Round 72.398 to the nearest whole number.

29) Round 72.398 to two decimal places.

30) x rounded to the nearest ten is 70. Find the lower bound for x.

31) y rounded to the nearest hundred is 3400. Find the lower bound for y.

32) y rounded to the nearest hundred is 3400. Find the upper bound for y.

33) p is 17,000 to the nearest 1000. Write the error interval for p.

34) m rounded to the nearest tenth is 62.4. Write the error interval for m.

35) In fact, m rounded to the nearest hundredth is 62.38. Write the error interval for m given this information.

36) In fact, m rounded to three decimal places is 62.379. Write the error interval for m given this information.

37) r truncated to one decimal place is is 38.7. Write the error interval for r.

38) In fact, r truncated to two decimal places is is 38.71. Write the error interval for r.

39) u rounded to one significant figure is 700. Write the error interval for u.

40) If u rounded to **two** significant figures is 700, what is the error interval for u?

41) If u rounded to two significant figures is in fact 720, what is the error interval for u?

42) T rounded to the nearest 1000 is 73,000.
P rounded to one significant figure is 400.
Find the error interval $T + P$

43) T rounded to the nearest 1000 is 73,000.
P rounded to one significant figure is 400.
Find the error interval $T - P$

44) Q rounded to the nearest whole number is 54.
v rounded to one significant figure is 600.
Find the upper bound for Qv.

Rounding and bounds
Higher worksheet

1) Round 37 to the nearest 10.

   40

2) Round 32 to the nearest 10.

   30

3) Round 35 to the nearest 10.

   40

4) Round 37 to the nearest 10.

   40

5) Round 524 to the nearest 10.

   520

6) Round 524 to the nearest 100.

   500

7) Round 7640 to the nearest 1000.

   8000

8) Round 7640 to the nearest 100.

   7600

9) Round 493.29 to the nearest 100.

   500

10) Round 493.29 to the nearest 10.

    490

Rounding and bounds
Higher worksheet

11) Round 493.29 to the nearest 1000.

   0

12) Round 493.29 the nearest whole number.

   493

13) Round 493.29 to one decimal place.

   493.3

14) Truncate 493.29 to one decimal place.

   493.2

15) Round 8.501 to the nearest whole number.

   9

16) Round 30.781 to the nearest tenth.

   30.8

17) Round 30.781 to two decimal places.

   30.78

18) Round 114.0025 to three decimal places.

   114.003

19) Round 87.299 to the nearest hundredth.

   87.30

20) Round 87.299 to one decimal place.

   87.3

21) Round 205,778 to one significant figure.

200,000

22) Round 205,778 to two significant figures.

210,000

23) Round 205,778 to three significant figures.

206,000

24) Round 4319 to one significant figure.

4000

25) Round 48.173 to one significant figure.

50

26) Round 48.173 to two significant figures.

48

27) Round 48.173 to three significant figures.

48.2

28) Round 72.398 to the nearest whole number.

72

29) Round 72.398 to two decimal places.

72.40

30) x rounded to the nearest ten is 70. Find the lower bound for x.

65

31) y rounded to the nearest hundred is 3400. Find the lower bound for y.

3350

32) y rounded to the nearest hundred is 3400. Find the upper bound for y.

3450

33) p is 17,000 to the nearest 1000. Write the error interval for p.

$16500 \leq p < 17500$

34) m rounded to the nearest tenth is 62.4. Write the error interval for m.

$62.35 \leq m < 62.45$

35)   In fact, m rounded to the nearest hundredth is 62.38. Write the error interval for m given this information.

$62.375 \leq m < 62.385$

36)   In fact, m rounded to three decimal places is 62.379. Write the error interval for m given this information.

$62.3785 \leq m < 62.3795$

37) r truncated to one decimal place is is 38.7. Write the error interval for r.

$38.7 \leq m < 38.8$

38)   In fact, r truncated to two decimal places is is 38.71. Write the error interval for r.

$38.71 \leq m < 38.72$

39) u rounded to one significant figure is 700. Write the error interval for u.

$650 \leq m < 750$

Rounding and bounds
Higher worksheet

40) If u rounded to **two** significant figures is 700, what is the error interval for u?

$695 \leq m < 705$

41) If u rounded to two significant figures is in fact 720, what is the error interval for u?

$715 \leq m < 725$

42) T rounded to the nearest 1000 is 73,000.
P rounded to one significant figure is 400.
Find the error interval $T + P$

	Lower bound	Upper bound
T	72,500	73,500
P	350	450

Lower bound for $T + P = 72{,}500 + 350 = 72{,}850$
Upper bound for $T + P = 73{,}500 + 450 = 73{,}950$

$72{,}850 \leq m < 73{,}950$

43) T rounded to the nearest 1000 is 73,000.
P rounded to one significant figure is 400.
Find the error interval $T - P$

Lower bound for $T - P = 72{,}500 - 450 = 72{,}050$
Upper bound for $T - P = 73{,}500 - 350 = 73{,}150$

$72{,}050 \leq T - P < 73{,}150$

44) Q rounded to the nearest whole number is 54.
v rounded to one significant figure is 600.
Find the upper bound for Qv.

	Lower bound	Upper bound
Q	53.5	54.5
v	550	650

Upper bound for $Qv = 54.5 \times 650 = 35{,}425$